

# TC-K715S/K717ES/K815S

## SERVICE MANUAL

Ver 1.1 2001.06

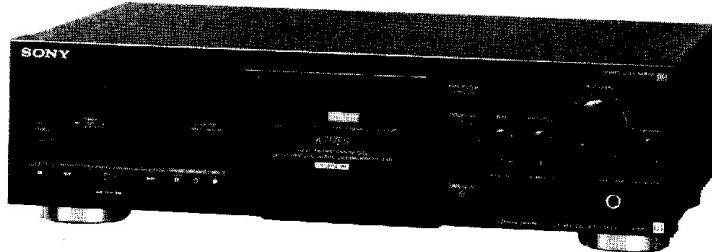


Photo: TC-K717ES

*US Model*  
*Canadian Model*

TC-K717ES

*AEP Model*

TC-K715S/K815S

*UK Model*

TC-K715S

*E Model*

TC-K717ES

*Australian Model*

TC-K715S

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.  
"DOLBY" and the double-D symbol **DD** are trademarks of Dolby Laboratories Licensing Corporation.

| Model Name Using Similar Mechanism |           | TC-K611S/K707ES/K711S |
|------------------------------------|-----------|-----------------------|
| Tape Transport Mechanism Type      | TC-K715S  | TCM-200V18            |
|                                    | TC-K717ES | TCM-200V19            |
|                                    | TC-K815S  | TCM-200V20            |

### SPECIFICATIONS

|                   |   |
|-------------------|---|
| Recording system  | 4-track 2-channel stereo  |
| Fast winding time | Approx. 90 sec. (with Sony C-60 cassette)   |
| Bias              | AC bias   |
| Heads             | Erasing head × 1<br>(TC-K717ES/K815S: S&F head, K715S: F&F head)<br>Recording head × 1 (SD head)<br>Playback head × 1<br>(TC-K715S/K815S: SD head, K717ES: LA head) |
| Motors            | Capstan motor × 1 (DC servo motor)<br>Reel motor × 1 (DC motor)<br>Assist (mechanism drive) motor × 1 (DC motor)  |

Signal-to-noise ratio (at peak level and weighted)

| Cassette (Dolby NR off) | Type IV | Type II | Type I |
|-------------------------|---------|---------|--------|
|                         | 61 dB   | 59 dB   | 57 dB  |

S/N ratio improvement (approximate values)

With Dolby B NR on: 5 dB at 1 kHz; 10 dB at 5 kHz  
With Dolby C NR on: 15 dB at 500 Hz; 20 dB at 1 kHz  
With Dolby S NR on: 10 dB at 100 Hz; 24 dB at 1 kHz

|                     |   |
|---------------------|---|
| Harmonic distortion | 0.4% (with Type I, 160 nWb/m, 315 Hz, 3rd H.D.)<br>1.5% (with Type IV, 250 nWb/m, 315 Hz, 3rd H.D.) |
|---------------------|---|

Frequency response (Dolby NR off)

|                  |  |
|------------------|--|
| Type IV cassette | TC-K717ES: 20–21,000Hz (±3dB, IEC)<br>TC-K715S/K815S: 20–20,000Hz (±3dB, IEC)<br>20–16,000Hz [±3dB (–4dB recording)] |
| Type II cassette | TC-K717ES: 20–19,000Hz (±3dB, IEC)<br>TC-K715S/K815S: 20–18,000Hz (±3dB, IEC)  |
| Type I cassette  | 20–17,000Hz (±3dB, IEC)  |

Type IV: Sony Type IV (METAL)

Type II: Sony Type II (HIGH)

Type I: Sony Type I (NORMAL)

|                 |   |
|-----------------|---|
| Wow and flutter | ±0.06% W. Peak (IEC) (TC-K717ES/K815S)<br>±0.065% W. Peak (IEC) (TC-K715S)<br>0.04% W. RMS (NAB) (TC-K717ES/K815S)<br>0.045% W. RMS (NAB) (TC-K715S)<br>±0.11% W. Peak (DIN) (TC-K717ES/K815S)<br>±0.12% W. Peak (DIN) (TC-K715S) |
|-----------------|---|

—Continued on next page—

**STEREO CASSETTE DECK**  
**SONY®**

## Inputs

|                              |                 |           |
|------------------------------|-----------------|-----------|
| Line inputs<br>(phono jacks) | Sensitivity     | 0.16 V    |
|                              | Input impedance | 47 k ohms |

## Outputs

|                                   |                    |   |
|-----------------------------------|--------------------|---|
| Line outputs<br>(phono jacks)     | Rated output level | 0.5 V at a load impedance of 47 k ohms  |
|                                   | Load impedance     | Over 10 k ohms                          |
| Headphones<br>(stereo phone jack) | Output level       | 0 - 3 mW at a load impedance of 32 ohms |

## General

**Power requirements** US, Canadian model : 120V AC, 60Hz  
AEP, German model : 220-230V AC, 50/60Hz  
UK model : 240V AC, 50Hz  
E model : 120V, 220V and 240V AC adjustable, 50/60Hz  
Australian model : 240V AC, 50/60Hz

**Power consumption** 21 W

**Dimensions** Approx. 430 × 123 × 306 mm (w/h/d)  
(17 × 4<sup>7</sup>/<sub>8</sub> × 12<sup>1</sup>/<sub>8</sub> inches)  
including projecting parts and controls

**Mass** TC-K717ES/K815S :  
Approx. 4.9kg (10 lbs 13 oz)  
TC-K715S :  
Approx. 4.7kg (10 lbs 6 oz)

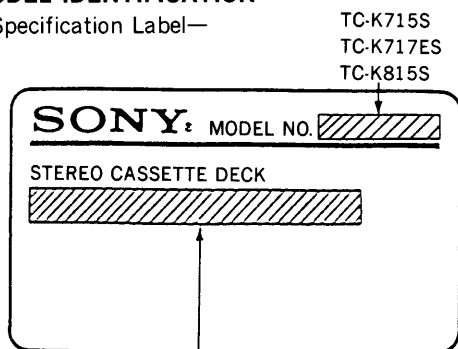
## Supplied accessories

Audio connecting cords (2)

Design and specifications are subject to change without notice.

## MODEL IDENTIFICATION

—Specification Label—



US, Canadian model : AC 120V 60Hz 21W  
AEP, German model : AC 220-230V~50/60Hz 21W  
UK model : AC 240V~50Hz  
E model : AC 120, 220, 240V~50/60Hz 21W  
Australian model : AC 240V~50/60Hz

## SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK OR DOTTED LINE WITH MARK ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

## SAFETY CHECK-OUT (US Model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

## LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

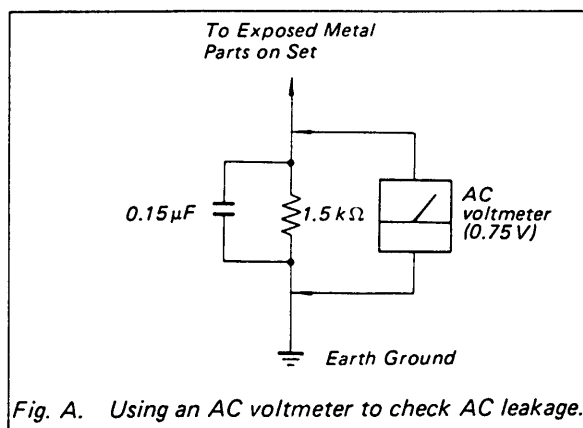


Fig. A. Using an AC voltmeter to check AC leakage.

## ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

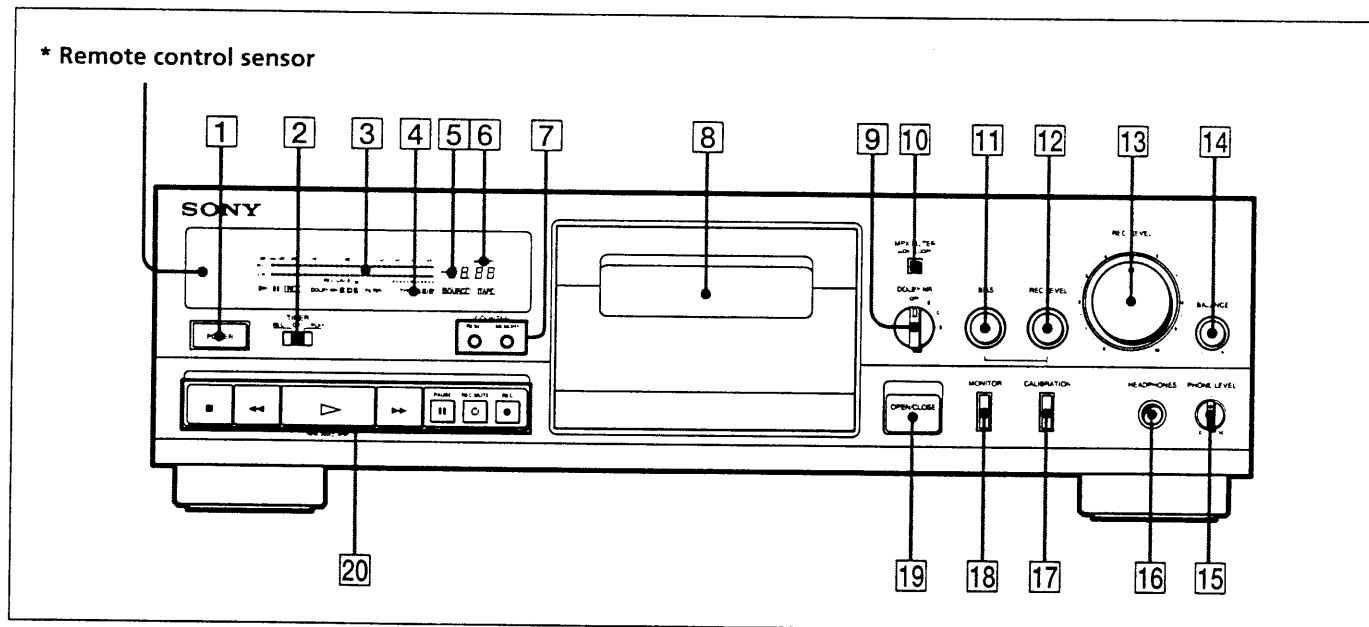
## TABLE OF CONTENTS

| <u>Section</u>                   | <u>Title</u>   | <u>Page</u> |
|----------------------------------|--|-------------|
| <b>1. GENERAL</b>                |  |             |
|                                  | Identifying the Parts on the Front Panel .....                                     | 4           |
| <b>2. DISASSEMBLY</b>            |  |             |
| 2-1.                             | Mechanism Deck Block .....   | 5           |
| 2-2.                             | Power Transformer .....  | 5           |
| 2-3.                             | Cassette Holder Assy .....   | 6           |
| 2-4.                             | Ornamental Plate Assy .....  | 6           |
| 2-5.                             | Capstan Motor Assy (TC-K715S) .....  | 7           |
| 2-6.                             | Flywheel (V) Assy (TC-K715S) .....   | 7           |
| 2-7.                             | Capstan Motor Assy (TC-K717ES/K815S) .....   | 8           |
| 2-8.                             | Flywheel Assy (TC-K717ES/K815S).....   | 8           |
| 2-9.                             | Reel and Assist Motors .....   | 9           |
| <b>3. MECHANICAL ADJUSTMENTS</b> |  | 10          |
| <b>4. ELECTRICAL ADJUSTMENTS</b> |  | 13          |
| <b>5. DIAGRAMS</b>               |  |             |
| 5-1.                             | Block Diagram.....   | 17          |
| 5-2.                             | Circuit Boards Location .....  | 21          |
| 5-3.                             | Printed Wiring Boards—Main Section— .....  | 23          |
| 5-4.                             | Schematic Diagram—Audio Section— .....   | 27          |
| 5-5.                             | Schematic Diagram—System Control Section— .....                                    | 31          |
| 5-6.                             | Schematic Diagram—Dolby S Section— .....   | 35          |
| 5-7.                             | Printed Wiring Board—Dolby S Section— .....  | 36          |
| 5-8.                             | Semiconductor Lead Layouts .....   | 37          |
| <b>6. EXPLODED VIEWS</b>         |  |             |
| 6-1.                             | Front Panel Section .....  | 38          |
| 6-2.                             | Chassis Section.....   | 39          |
| 6-3.                             | Mechanism Deck Section 1 (TCM-200V18 :<br>TC-K715S) .....                          | 40          |
| 6-4.                             | Mechanism Deck Section 2 (TCM-200V18 :<br>TC-K715S) .....                          | 41          |
| 6-5.                             | Mechanism Deck Section 3 (TCM-200V19 :<br>TC-K717ES) (TCM-200V20 : TC-K815S) ..... | 42          |
| 6-6.                             | Mechanism Deck Section 4 (TCM-200V19 :<br>TC-K717ES) (TCM-200V20 : TC-K815S) ..... | 43          |
| <b>7. ELECTRICAL PARTS LIST</b>  |  | 44          |

## SECTION 1 GENERAL

This section is extracted from instruction manual.

# Identifying the Parts on the Front Panel





For details, refer to the page number(s) indicated in parentheses.

- 1 POWER switch
- 2 TIMER switch (page 15)
- 3 Peak level meter (page 12)
- 4 Tape TYPE indicator
- 5 Linear counter (page 9)
- 6 MEMORY indicator
- 7 COUNTER buttons  
RESET button (page 9)  
MEMORY button (pages 9 and 10)
- 8 Cassette holder
- 9 DOLBY NR (noise reduction) switch (pages 7 and 10)
- 10 MPX FILTER button (page 12)
- 11 BIAS control (pages 13 and 14)
- 12 REC (recording) LEVEL control for calibration (pages 13 and 14)
- 13 REC (recording) LEVEL control (pages 11 and 12)
- 14 BALANCE control (page 11)
- 15 PHONE (headphones) LEVEL control (page 7)
- 16 HEADPHONES jack (stereo phone jack) (page 7)
- 17 CALIBRATION button (pages 13 and 14)
- 18 MONITOR button (page 13)

- 19 OPEN/CLOSE button
- 20 Tape operation buttons
  - (stop) button
  - ◀◀ (rewind) (Multi-AMS\*\*) button
  - ▶ (play) button
  - ▶▶ (fast-forward) (Multi-AMS\*\*) button
  - || PAUSE button
  - REC MUTE (record muting) button (page 15)
  - REC (recording) button

### \*Remote control sensor

You can remotely control this cassette deck with:

- A remote commander that came with a Sony amplifier or receiver if it has the  mark and cassette deck control capability.
- An optional Sony remote commander with the  mark and cassette deck control capability.

\*\* AMS is an abbreviation for Automatic Music Sensor.

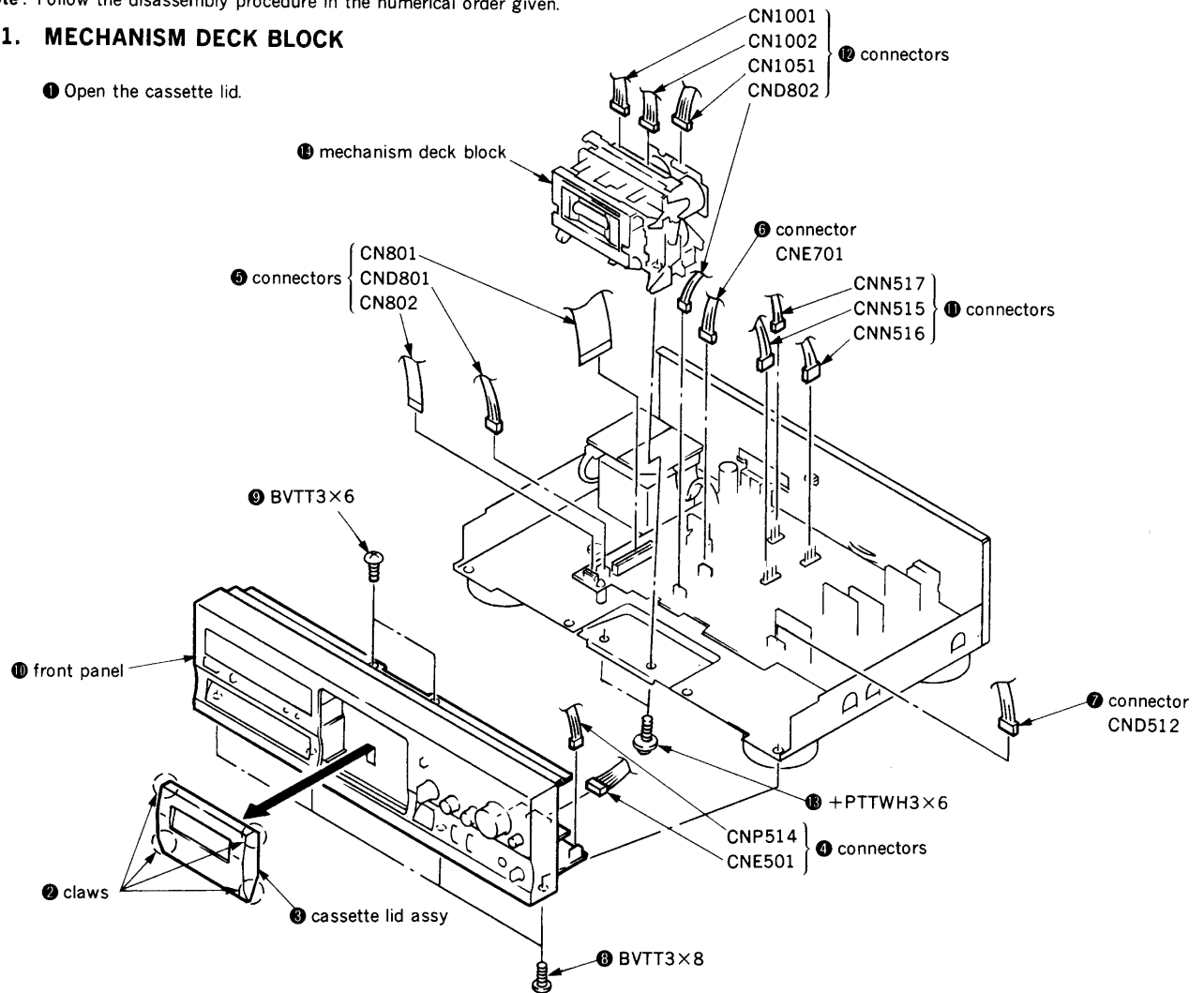


## SECTION 2 DISASSEMBLY

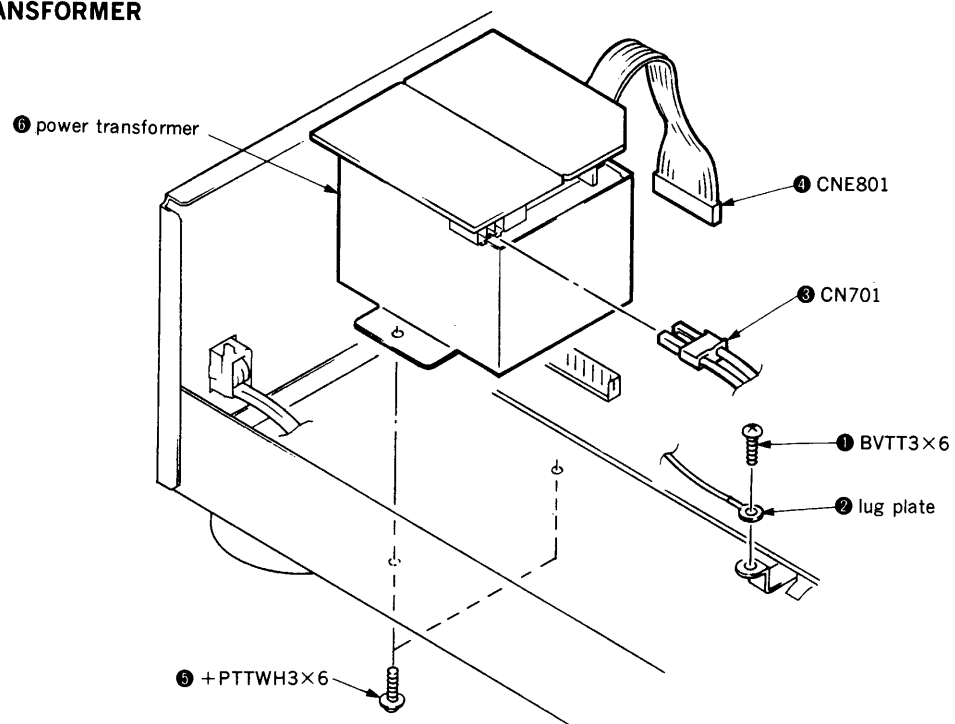
**Note:** Follow the disassembly procedure in the numerical order given.

### 2-1. MECHANISM DECK BLOCK

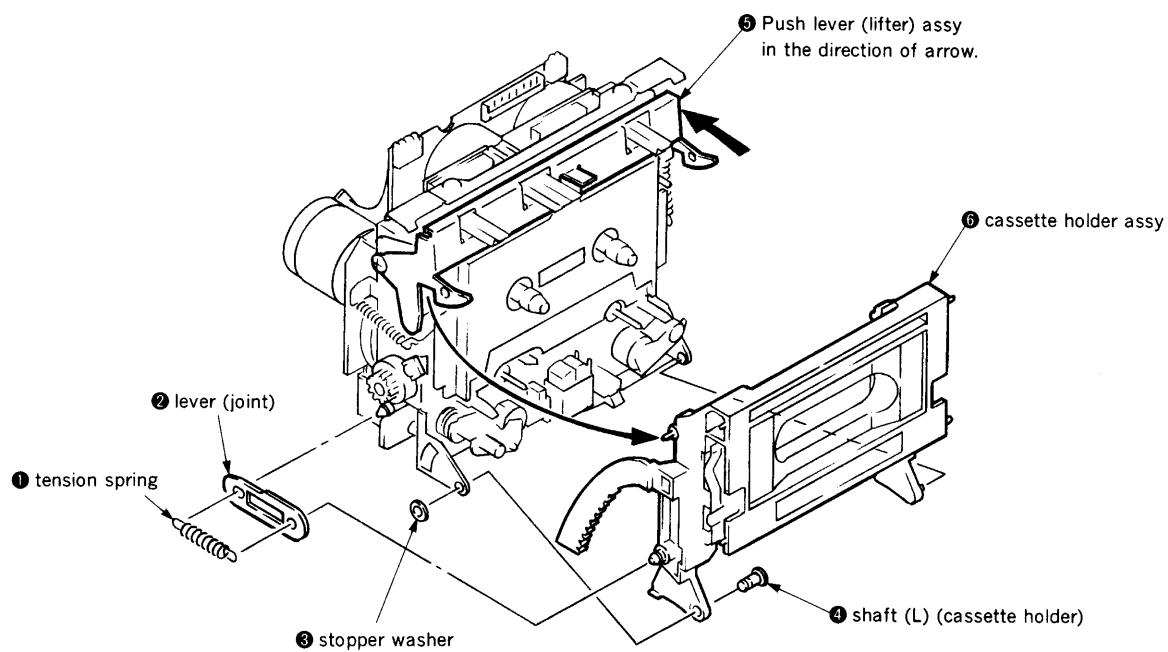
- ① Open the cassette lid.



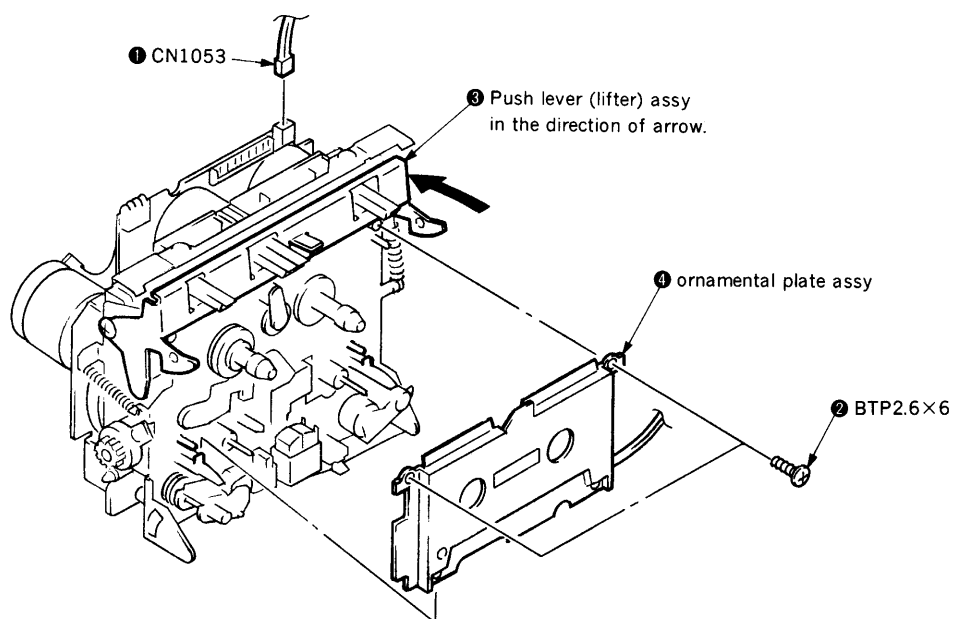
### 2-2. POWER TRANSFORMER



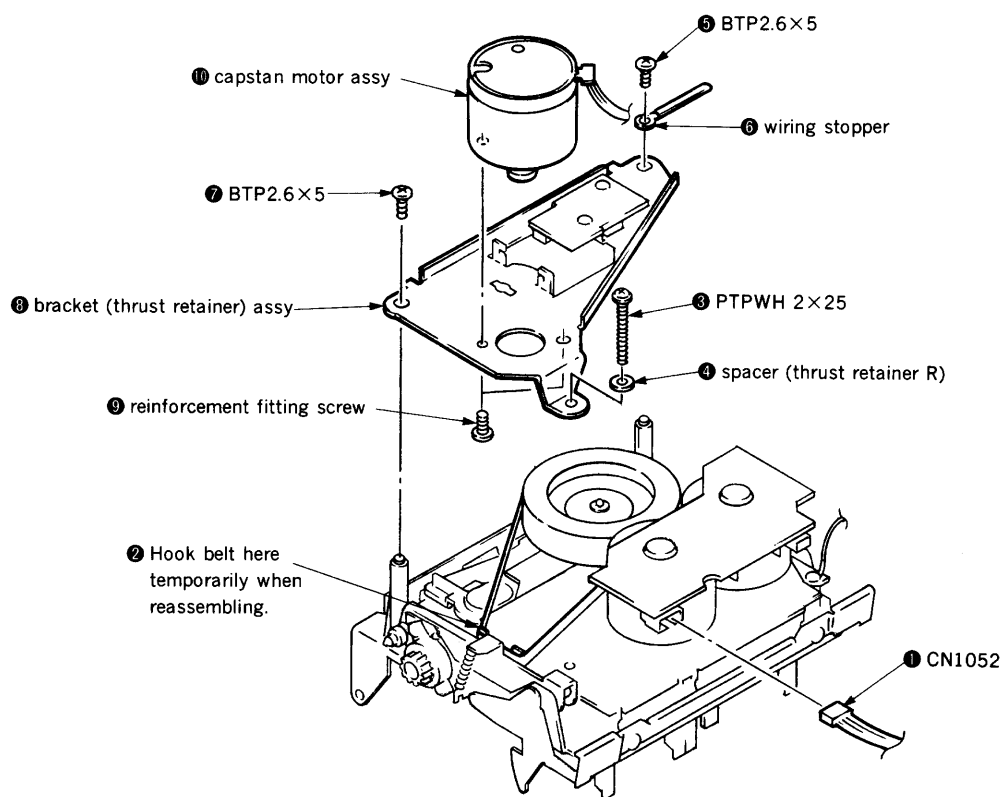
### 2-3. CASSETTE HOLDER ASSY



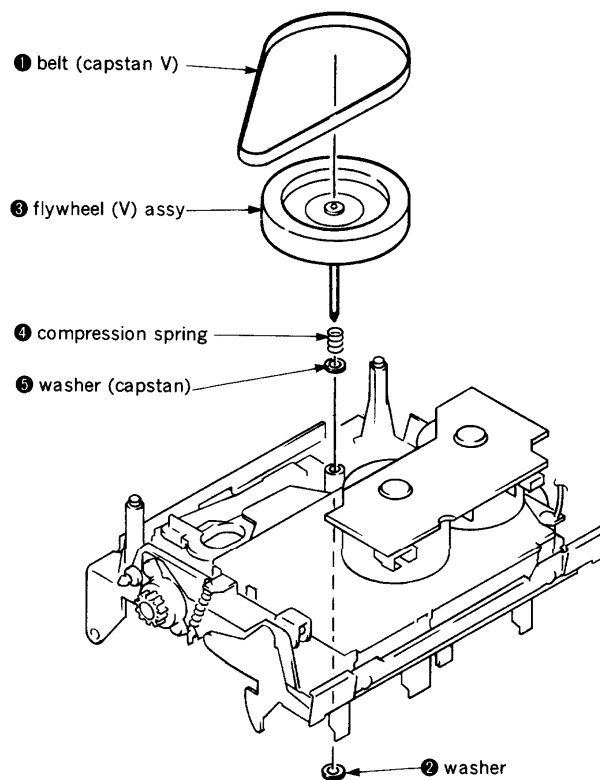
### 2-4. ORNAMENTAL PLATE ASSY



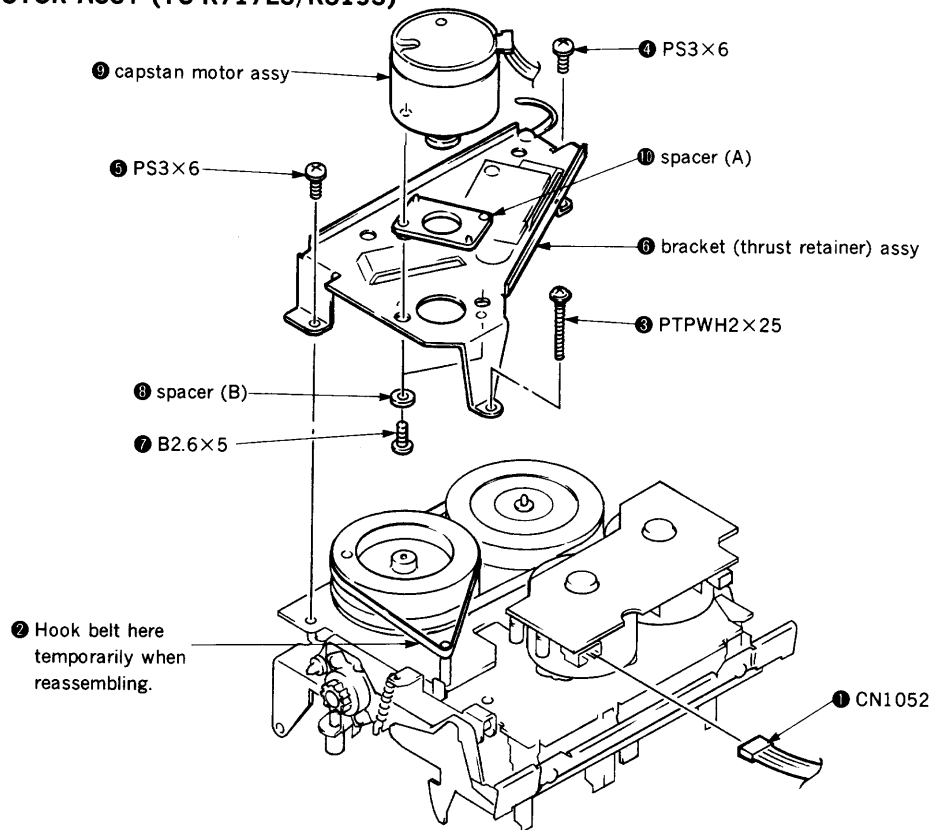
## 2-5. CAPSTAN MOTOR ASSY (TC-K715S)



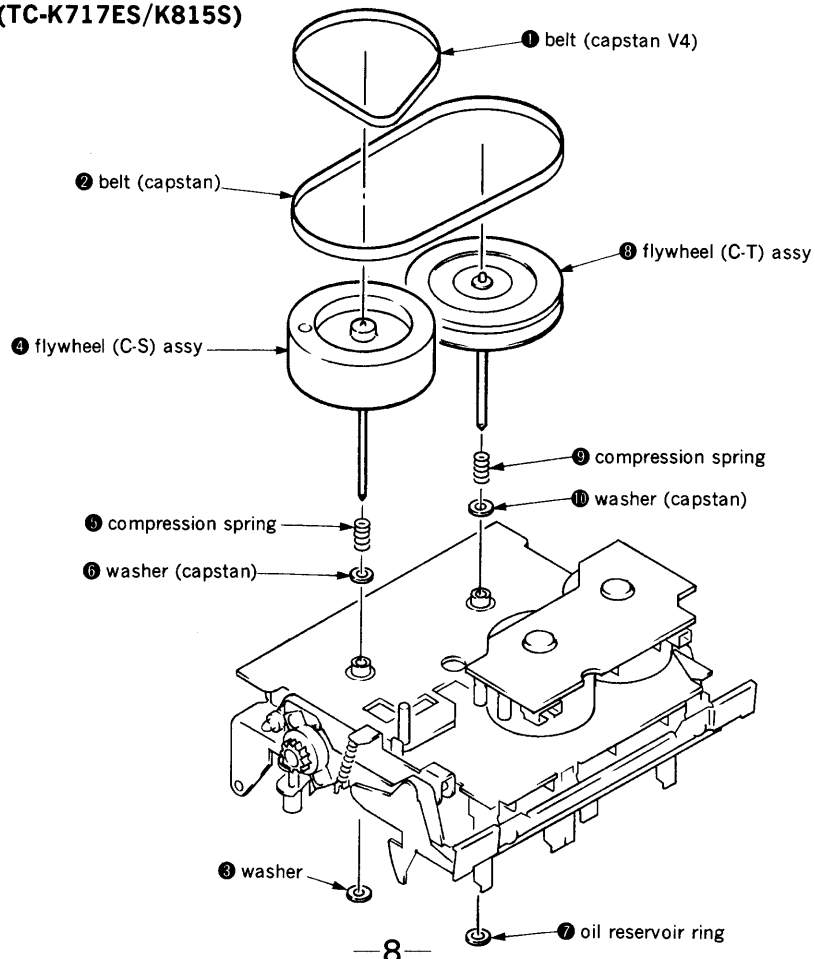
## 2-6. FLYWHEEL (V) ASSY (TC-K715S)



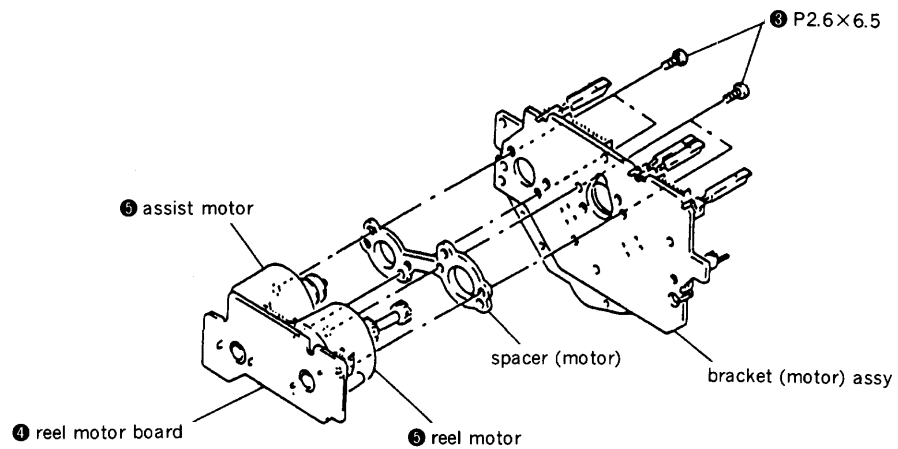
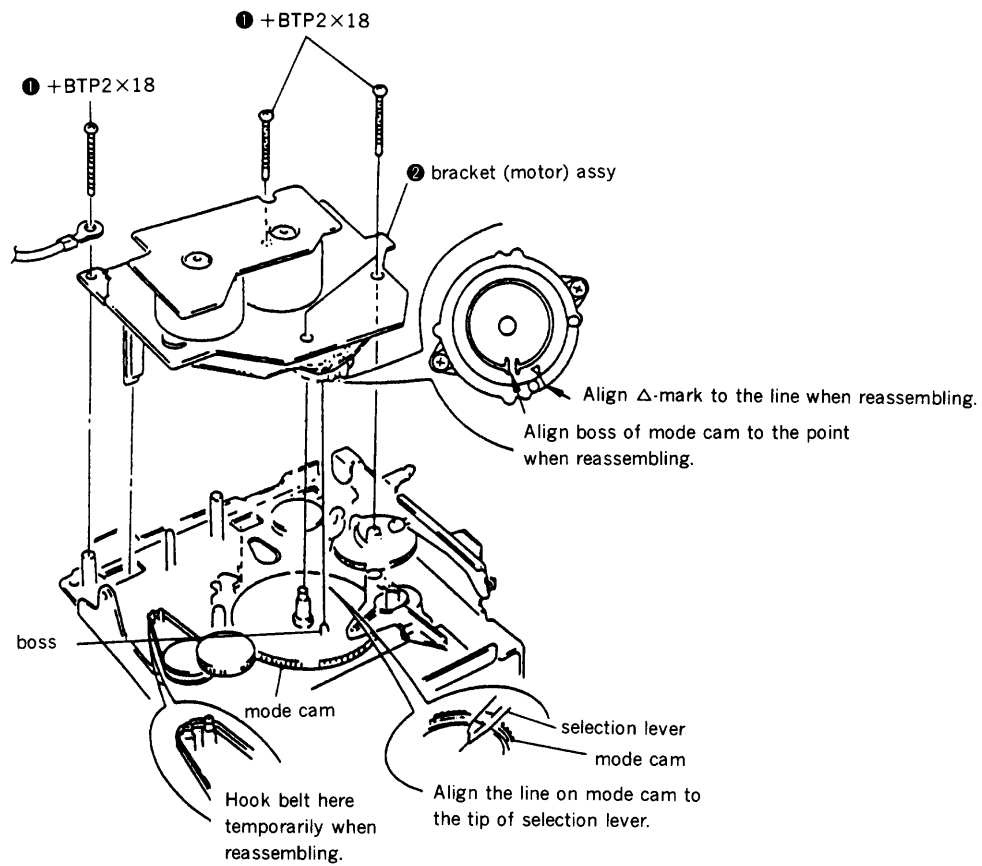
## 2-7. CAPSTAN MOTOR ASSY (TC-K717ES/K815S)



## 2-8. FLYWHEEL ASSY (TC-K717ES/K815S)



## 2-9. REEL AND ASSIST MOTORS



## SECTION 3 MECHANICAL ADJUSTMENTS

### PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab :
 

|                      |              |
|----------------------|--------------|
| record/playback head | pinch roller |
| erase head           | rubber belts |
| capstan              | idler        |
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.

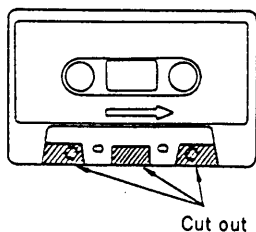
### Tape Path Adjustment

**Note :** When using the adjustment methods for other than replacement reasons, please do not tamper unnecessarily with the adjustment screws or the erase head because either the supply pinch roller guide or the record/playback head will be made the standard tape paths. Moreover, when it is necessary to adjust and replace two or more of any of the heads and/or pinch rollers, replace them one by one, completely taking out the first tape path, and then replacing the second one.

### Preparation :

1. Mirror cassette CQ-009C 8-909-708-01  
(or CQ-012C 8-909-708-02)

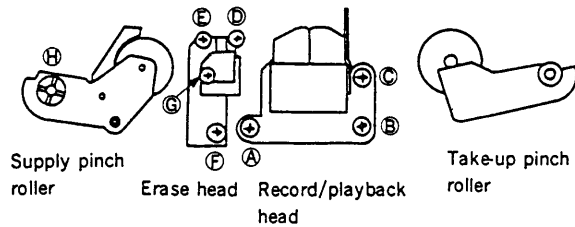
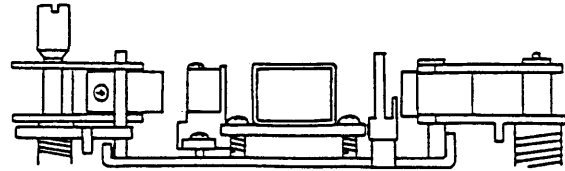
If one does not have this, cut out the sections of a 120-minute cassette shell as indicated below and use that cassette.



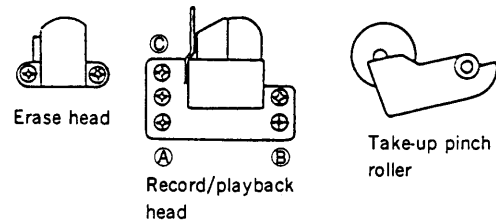
2. Phillips screwdriver (medium-size) :  
For the head adjustment screws  
Blade-type screwdriver (large-size) :  
For the supply pinch roller adjustment screws
3. Pen light
4. WS-48B (3kHz, 0dB)
5. P-4-A100 (10kHz, -10dB)

**Adjustment Position :** As seen from the cassette, side (top) and MD as seen head on (bottom).

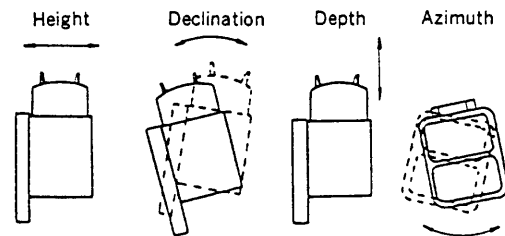
**TC-K717ES/K815S :**



**TC-K715S :**



**Definition of Terms :** The figures are of a record/playback head.



## Adjustment Method :

### Supply Pinch Roller

**Note :** Only perform this adjustment when the supply pinch roller is to be replaced.

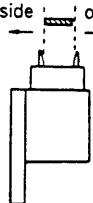
1. Insert the mirror cassette and put the unit in record/playback mode.
2. Check to see whether the tape is curling at the record/playback head guide or the pinch roller guide.  
If it is curling, remove the curl by adjusting the  $\textcircled{B}$  tape curl adjustment screw. Then, check that the tape is running past the middle of the erase head.

### Record/playback Head

**Note :** Only perform this adjustment when the record/playback head is to be replaced.

1. Insert the mirror cassette and put the unit in record/playback mode.
2. **(Height Adjustment)** Check to see if the tape is curling at the tape guide of the head. If it is curling, tighten screws  $\textcircled{A}$ ,  $\textcircled{B}$ , and  $\textcircled{C}$ , respectively by the same angle, moving the head so that it remains at the same angle through out the procedure. If it curls on the bottom side of the mirror cassette (actually the inner side), tighten all the screws equally ; but loosen them if the tape begins to curl on the top side (outer side).

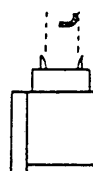
inside outside



normal  
(record/playback head  
as seen from the side  
of the erase head.)



Curling on the  
inner side.  
Tighten screws  
 $\textcircled{A}$ ,  $\textcircled{B}$ , and  $\textcircled{C}$ .



Curling on the  
outer side.  
Loosen screws  
 $\textcircled{A}$ ,  $\textcircled{B}$ , and  $\textcircled{C}$ .

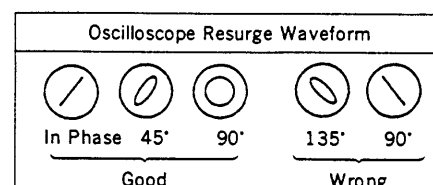
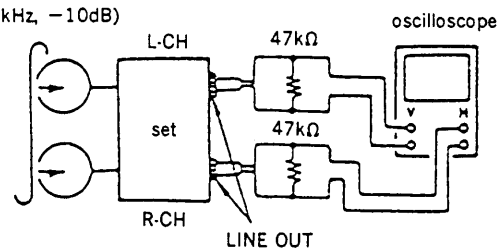
3. **(Declination Adjustment)** While in the record/playback position, set the back tension to 0 (wind the supply reel with something thin like a pencil in a counterclockwise direction) and make sure there is no curling or shifting (shifting up/shifting down) at the guide of the record/playback head.

Because shifting can only occur due to a difference in the width of the tape and that of the tape guides (curling will otherwise occur), it is necessary to pay close attention since it can be easily overlooked.

When there is a shift, tighten screws  $\textcircled{B}$  and  $\textcircled{C}$  equally and change the declination of the head. If the tape is shifting up, tighten the screws, and if it is shifting down, loosen them.

4. Repeat the adjustments in steps 2 and 3 and fine adjust the height and the declination.
5. **(Preliminary Azimuth Adjustment)**  
After demagnetizing and cleaning the adjustment head, playback WS-48B (3kHz, 0dB).  
Turn screw  $\textcircled{C}$  so that the reading on the level meter of the unit or that of the level meter connected to LINE OUT is maximized.  
If the screw is turned at least half a revolution, repeat the adjustments from step 1.
6. **(Tape Path Check)** Connect the oscilloscope to LINE OUT and playback P-4-A100 (10kHz, -10dB) to display a resurge waveform. After 20 seconds of record/playback (after the tension within the loop has been increased sufficiently), make sure the variation in the resurge is within  $\pm 90$  degrees (within  $\pm 45$  degrees is desired).  
If the declination and /or the height adjustment is not perfect. Repeat the adjustments from step 1.

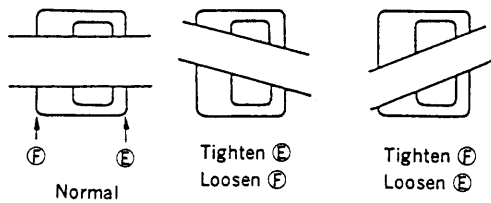
test tape  
P-4-A100  
(10kHz, -10dB)



## Erase Head

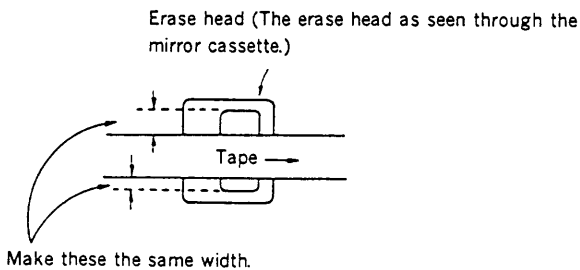
**Note:** Only perform this adjustment when the erase head is to be replaced.

1. Insert the mirror cassette and put the unit in record/playback mode.
2. (**Azimuth Adjustment**) Adjust the azimuth of the erase head by adjusting screws ⑤ and ⑥ so that the tape runs as evenly as possible.

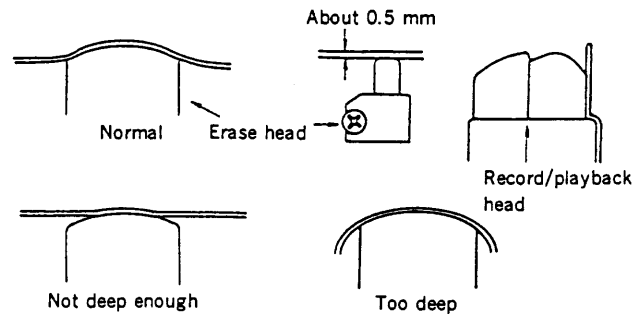


(The erase head as seen when erasing the mirror cassette.)

3. (**Height adjustment**) Turn screws ④, ⑤, and ⑥ all by the same angle so that the portions of the erase head visible at top and bottom are nearly of equal width. If the width at the top is greater, tighten the screws; if the width at the bottom is greater, loosen the screws.



4. (**Declination Adjustment**) Leaving it in the playback position, put the back tension to 0 and make certain the erase head part and supply pinch roller guide part do not shift. If there is a shift, turn the screw ⑦ and change the declination.  
Looking at it using the mirror cassette, if the tape shifts up, tighten the screw, and if it shifts down, loosen the screw.
5. Repeat the adjustments beginning with step 2 and fine adjust the height and declination. And make sure the tape does not curl up on the pinch roller guide or the guide part of the record/playback head.
6. (**Depth Adjustment**) In order to make the entire head play the tape smoothly, and to make sure the depth of the erase head is neither too shallow nor too deep, loosen screw ③ a bit.



## Check

1. Check to make sure that there are no curls or shifts through out the whole tape path and that the tape runs smoothly.
2. Reapply the locking compound to the adjusted screws. (The locking compound should only be applied to screw ③ after the azimuth has been adjusted.)

## Torque Measurement

| Torque              | Torque meter | Meter reading   |
|---------------------|--------------|---|
| FWD                 | CQ-102C      | 30—60g·cm (0.42—0.83 oz·inch)   |
| FWD<br>Back tension | CQ-102C      | 1—5g·cm (0.014—0.069 oz·inch): TC-K715S<br>7—11 g·cm (0.097—0.153 oz·inch): TC-K717ES/K815S |
| FF, REW             | CQ-201B      | 65—90g·cm (0.90—1.25 oz·inch)   |

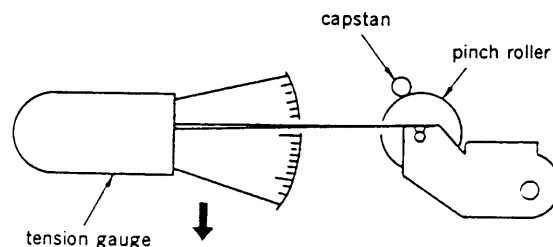
## Pinch Roller Pressing Force Measurement

Mode : playback

Hook needle of the tension gauge to the pinch roller shaft and push back pinch roller to detach it from capstan. Then, return it gradually to capstan and read the gauge when the pinch roller begins turning.

## Standard Limits :

210—310g (7.4—10.9 oz) : TC-K715S  
 Take-up side : 270—350g (9.5—12.3 oz) } : TC-K717ES/  
 Supply side : 180—280g (6.4—9.9 oz) } K815S





## SECTION 4 ELECTRICAL ADJUSTMENTS

**Note:** The adjustment should be performed in the order given in the service manual. As a rule, adjustments about playback should be performed before those about recording.

The adjustments should be performed before for both L-CH and R-CH.

- Switches and controls should be set as follows unless otherwise specified.

DOLBY NR switch : OFF

MPX FILTER switch : OFF

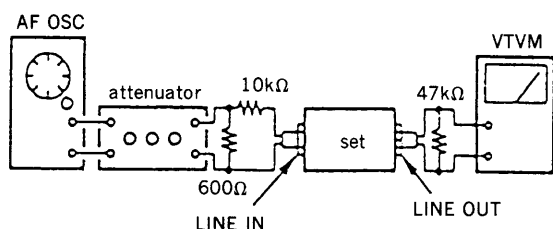
MONITOR switch : Tape

CALIBRATION switch: OFF

- Standard Record :

Deliver the standard input signal level to the input jack and set the REC LEVEL control to obtain the standard output signal level.

### —Record Mode—



**0dB=775mV**

### Standard Input Level

|                  |               |
|------------------|---------------|
| input terminal   | LINE IN       |
| source impedance | 10kΩ          |
| input level      | 0.5V (−3.8dB) |

### Standard Output Level

|                 |               |
|-----------------|---------------|
| output terminal | LINE OUT      |
| load impedance  | 47kΩ          |
| output level    | 0.5V (−3.8dB) |

### Test Tape

| Type     | Signal       | Used for              |
|----------|--------------|-----------------------|
| P-4-A100 | 10kHz, −10dB | Azimuth Adjustment    |
| P-4-L300 | 315Hz, 0dB   | PB Level Adjustment   |
| WS-48B   | 3kHz, 0dB    | Tape Speed Adjustment |

### Test Mode

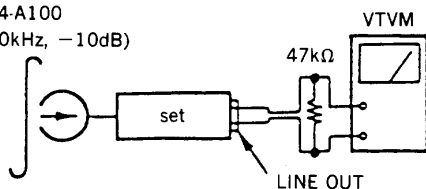
This set will get into test mode by shorting the pins ① and ② of CNE702 (TEST) on MAIN board before turning the power on.

### Record/Playback Head Azimuth Adjustment

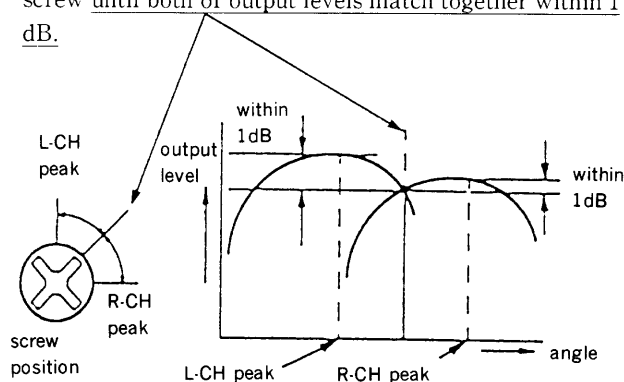
#### Procedure :

- Mode: playback

Test tape  
P-4-A100  
(10kHz, −10dB)



- Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 1 dB.



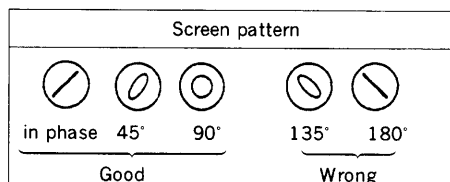
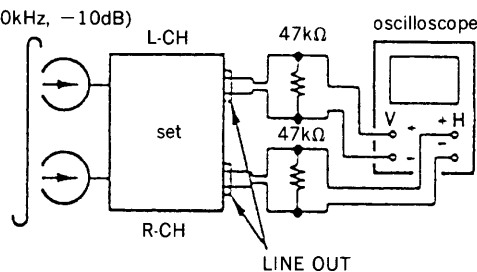
- Phase Check

Mode: playback

test tape

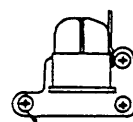
P-4-A100

(10kHz, −10dB)

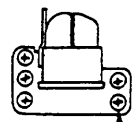


- After the adjustment, lock the screws with locking compound.

**Adjustment Location :** Record/Playback head



Adjustment screw  
(TC-K717ES/K815S)

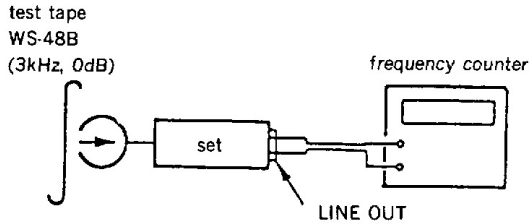


Adjustment screw  
(TC-K715S)

### Tape Speed Check

#### Procedure :

Mode : playback



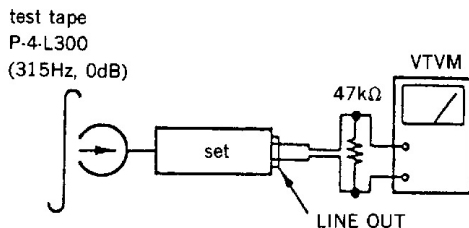
1. Short the connector CNE702 (pins ① and ②). (test mode)
2. Set to FWD playback mode.
3. Confirm that the frequency counter reading becomes  $3,000 \pm 30\text{Hz}$ .
4. Push the COUNTER RESET switch (S759) on the front panel (FL board).
5. Confirm that the counter display of fluorescent indicator tube (FLT751) is "A1E".

Note : "E" displayed segment may be flicking.  
6. After checked, open the connector CNE702.

### Playback Level Adjustment

#### Procedure :

Mode : playback



Adjust RV121 (L-CH) and RV221 (R-CH) so that the reading on VTVM meets the adjustment limits below.

#### Adjustment Limits :

LINE OUT level :  $-8.2$  to  $-7.2\text{dB}$  (0.301 to 0.338V)

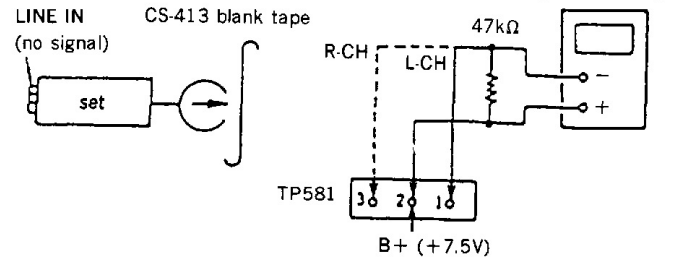
Level difference between channels : within 0.5dB

Confirm that the LINE OUT level does not change even if Playback and Stop operation is repeated several times.

Adjustment Location : MAIN board

### Bias Consumption Current Adjustment

#### Procedure :



1. Set RV181 (L-CH) and RV281 (R-CH) to mechanical center and turn the set recording mode.
2. Connect digital voltmeter as shown by the following table.
3. Adjust the following transformers for the minimum readings on the digital voltmeter

|      | Measurement Point | Adjustment Part | Value           |
|------|-------------------|-----------------|-----------------|
| L-CH | ① and ②, TP581    | T181            | less than 200mV |
| R-CH | ③ and ②, TP581    | T281            |                 |

Adjustment Location : MAIN board

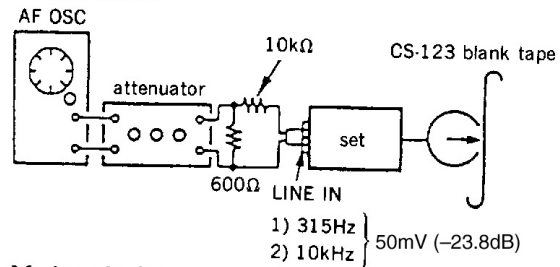
### Record Bias Adjustment

#### Setting :

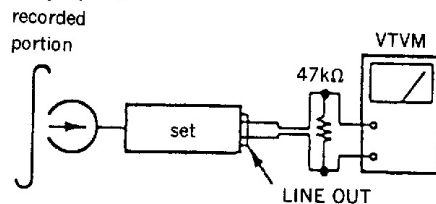
REC LEVEL control : Standard Record

#### Procedure :

1. Short the connector CNE702 (pins ① and ②). (test mode)
2. Mode : record



3. Mode : playback



4. Playback the signal recorded in step 1.
5. Confirm that the 10kHz playback output is  $0 \pm 0.5\text{dB}$  : (TC-K715S/K815S) or  $0 \pm 0.3\text{dB}$  : (TC-K717ES) relative to the 315Hz output. If necessary, adjust RV181 (L-CH) and RV281 (R-CH) for repeat the steps given above.
6. After adjustment, open the connector CNE702.

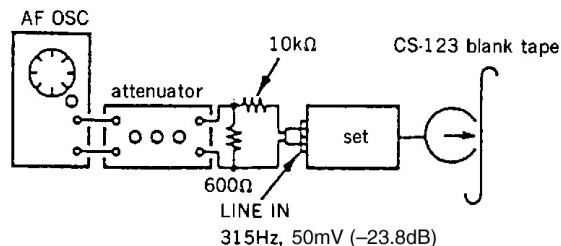
Adjustment Location : MAIN board

**Record Level Adjustment****Setting :**

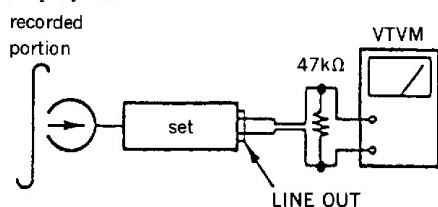
REC LEVEL control : Standard Record

**Procedure :**

1. Short the connector CNE702 (pins ① and ②). (test mode)
2. Mode : record



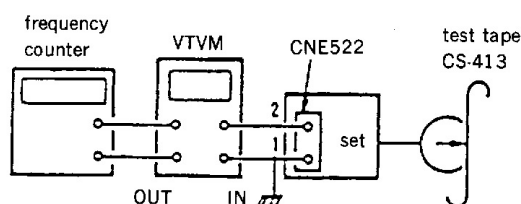
3. Mode : playback



4. Playback the signal recorded in step 1.
5. Confirm that the signal level is within the adjustment limits below. If necessary, adjust RV141 (L-CH) and RV241 (R-CH) repeat the steps given above.
6. After adjustment, open the connector CNE702.

**Adjustment Limits :** -24.3 to -23.3dB (47.2 to 53mV)**Adjustment Location :** MAIN board**Erase Current Adjustment (TC-K717ES/K815S)**

1. Mode : record



2. Adjust RV504 so that the reading on VTVM is 110mV (erase current=110mA.)
3. And then confirm that the reading on the frequency counter is 160kHz.

**Adjustment Limits :**

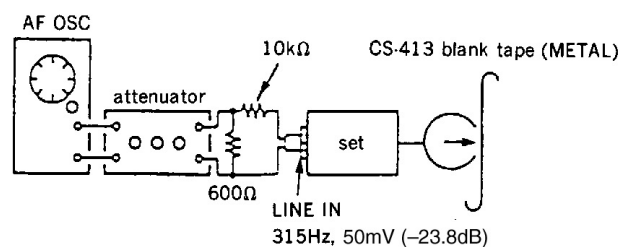
Erase current : 105 to 110mA

Frequency :  $160 \pm 6$ kHz**Adjustment Location :** MAIN board**Record EQ (IV) Adjustment****Setting :**

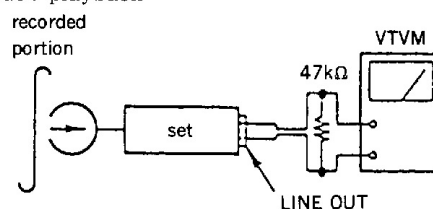
REC LEVEL control : Standard Record

**Procedure :**

1. Short the connector CNE702 (pins ① and ②). (test mode)
2. Mode : record



3. Mode : playback



4. Playback the signal recorded in step 1.
5. Adjust RV142 (L-CH) or RV242 (R-CH) so that the reading on VTVM meets the within 1dB for difference between L-CH and R-CH.
6. Adjust RV508 so that the R-CH meet the specification.
7. After adjustment, open the connector CNE702.

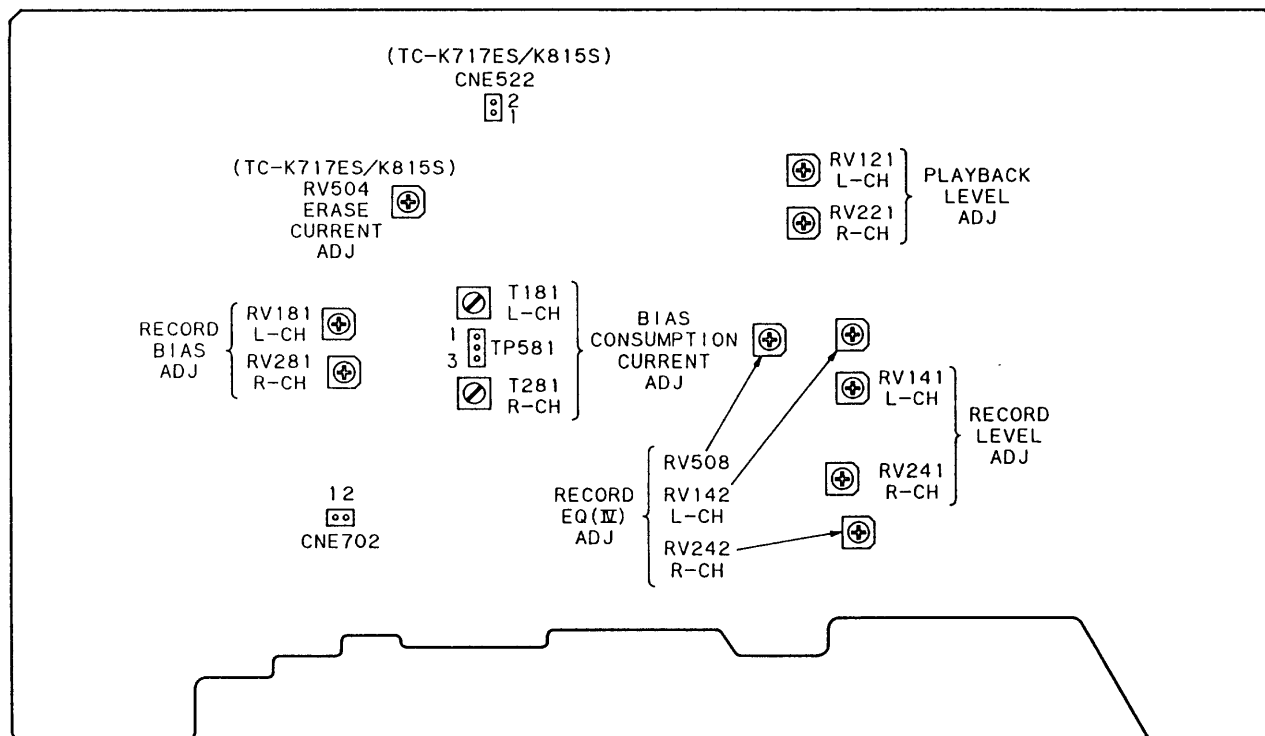
**Adjustment Limits :**

10kHz level difference against 315Hz reference.

 $0 \pm 0.3$ dB : (TC-K717ES) $0 \pm 0.5$ dB : (TC-K715S/K815S)**Adjustment Location :** MAIN board

Adjustment Location :

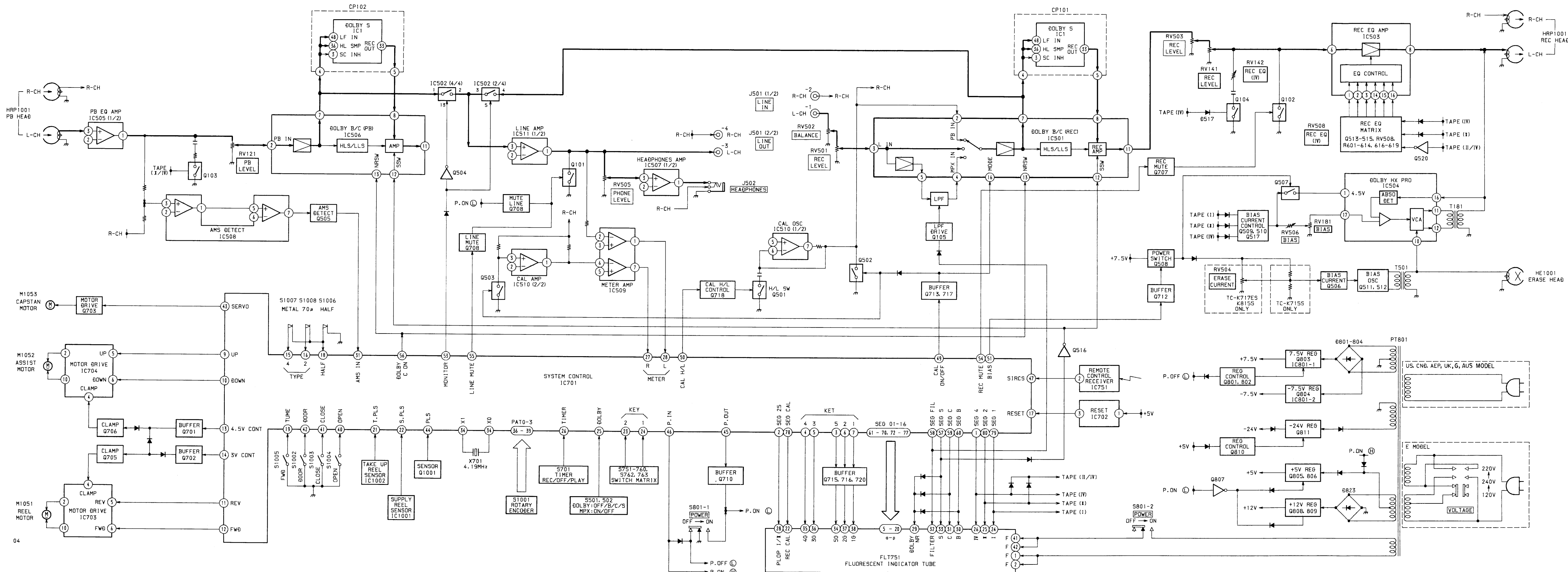
【 MAIN BOARD 】 (COMPONENT SIDE)



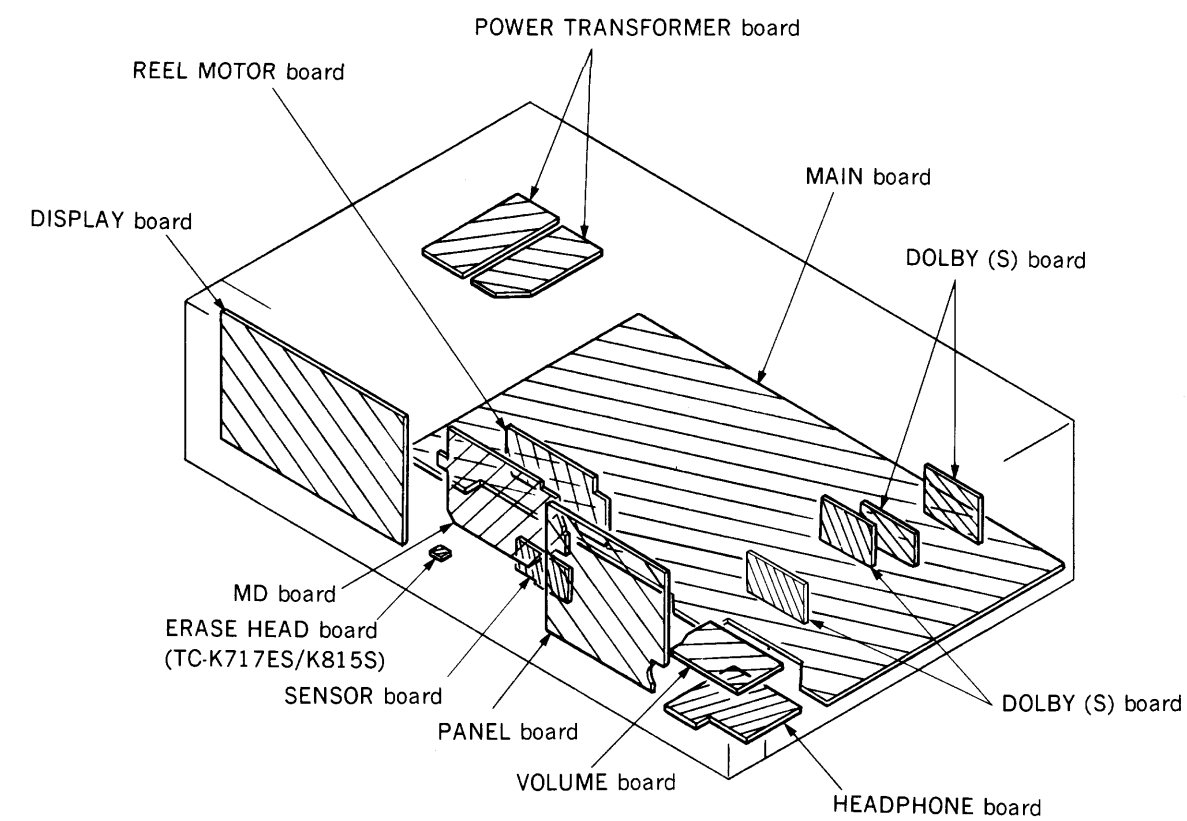
## SECTION 5

### DIAGRAMS

### 5-1. BLOCK DIAGRAM



## 5-2. CIRCUIT BOARDS LOCATION





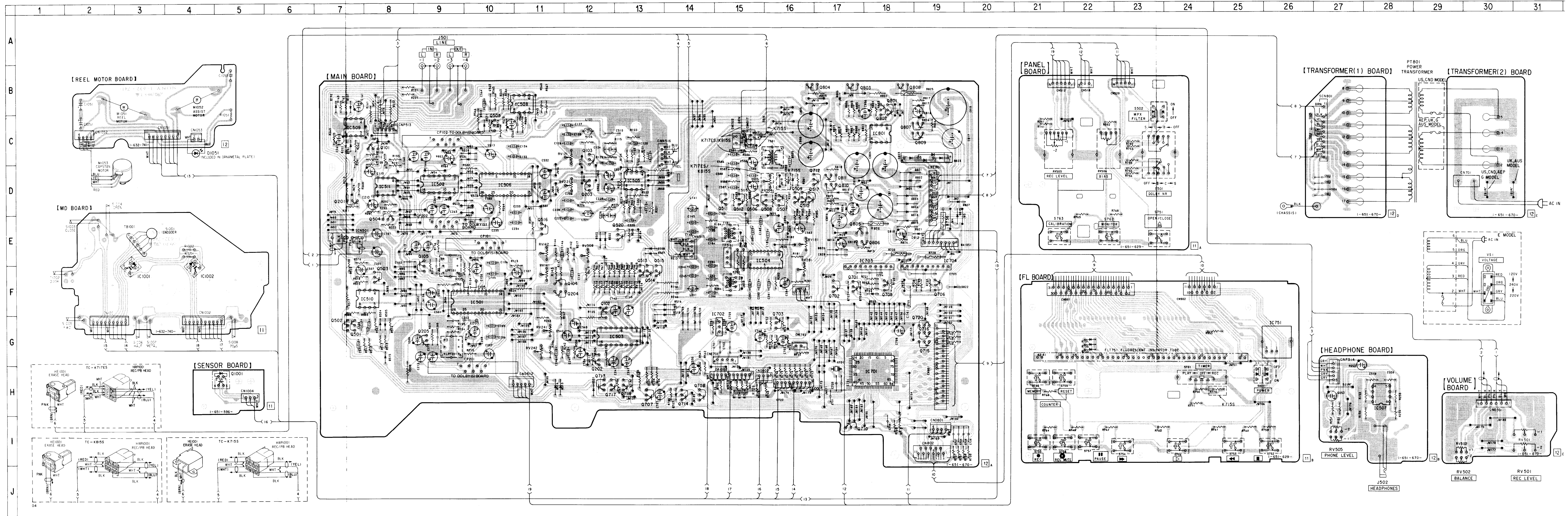
• Semiconductor Location

| Ref. No. | Location | Ref. No. | Location |
|----------|----------|----------|----------|
| D101     | B-7      | IC701    | H-17     |
| D102     | B-7      | IC702    | G-14     |
| D201     | C-7      | IC703    | E-17     |
| D202     | C-7      | IC704    | E-19     |
| D502     | E-12     | IC751    | G-26     |
| D503     | E-12     | IC801    | C-18     |
| D504     | G-8      | IC1001   | F-3      |
| D505     | G-8      | IC1002   | F-4      |
| D507     | D-13     |          |          |
| D508     | D-13     | Q101     | C-8      |
| D509     | C-16     | Q102     | F-12     |
| D510     | F-13     | Q103     | C-12     |
| D511     | F-13     | Q104     | F-11     |
| D512     | C-10     | Q105     | E-9      |
| D513     | H-11     | Q201     | D-7      |
| D514     | H-11     | Q202     | G-12     |
| D515     | G-8      | Q203     | D-12     |
| D516     | F-13     | Q204     | F-11     |
| D517     | E-12     | Q205     | G-9      |
| D518     | D-10     | Q501     | G-7      |
| D519     | D-9      | Q502     | G-7      |
| D520     | C-9      | Q503     | F-8      |
| D521     | C-9      | Q504     | E-8      |
| D531     | H-12     | Q505     | C-10     |
| D703     | F-17     | Q506     | D-15     |
| D704     | F-17     | Q507     | D-16     |
| D705     | F-18     | Q508     | D-15     |
| D707     | H-14     | Q509     | D-16     |
| D708     | G-14     | Q510     | D-16     |
| D709     | G-14     | Q511     | D-15     |
| D751     | G-22     | Q512     | D-15     |
| D752     | G-22     | Q513     | F-13     |
| D753     | G-22     | Q514     | F-13     |
| D801     | D-18     | Q515     | F-13     |
| D802     | D-18     | Q516     | E-10     |
| D803     | D-18     | Q517     | D-16     |
| D804     | D-18     | Q520     | D-13     |
| D805     | C-17     | Q701     | F-17     |
| D806     | B-17     | Q702     | F-17     |
| D807     | D-19     | Q703     | G-16     |
| D812     | E-18     | Q705     | F-18     |
| D813     | E-18     | Q706     | F-19     |
| D814     | E-17     | Q707     | H-13     |
| D815     | E-19     | Q708     | H-14     |
| D816     | C-19     | Q710     | H-17     |
| D817     | B-19     | Q712     | D-16     |
| D818     | E-18     | Q713     | H-12     |
| D819     | D-17     | Q714     | H-14     |
| D820     | E-17     | Q715     | G-19     |
| D822     | F-19     | Q716     | G-19     |
| D823     | C-18     | Q717     | H-12     |
| D824     | D-17     | Q718     | H-13     |
| D1051    | C-4      | Q720     | G-19     |
|          |          | Q801     | B-18     |
| IC501    | F-10     | Q802     | B-18     |
| IC502    | D-9      | Q803     | B-17     |
| IC503    | G-12     | Q804     | B-17     |
| IC504    | E-15     | Q805     | E-17     |
| IC505    | D-13     | Q806     | E-17     |
| IC506    | D-10     | Q807     | C-19     |
| IC507    | H-28     | Q808     | B-18     |
| IC508    | B-11     | Q809     | C-19     |
| IC509    | C-7      | Q810     | D-17     |
| IC510    | F-7      | Q811     | D-17     |
| IC511    | D-8      | Q1001    | H-5      |

Note:

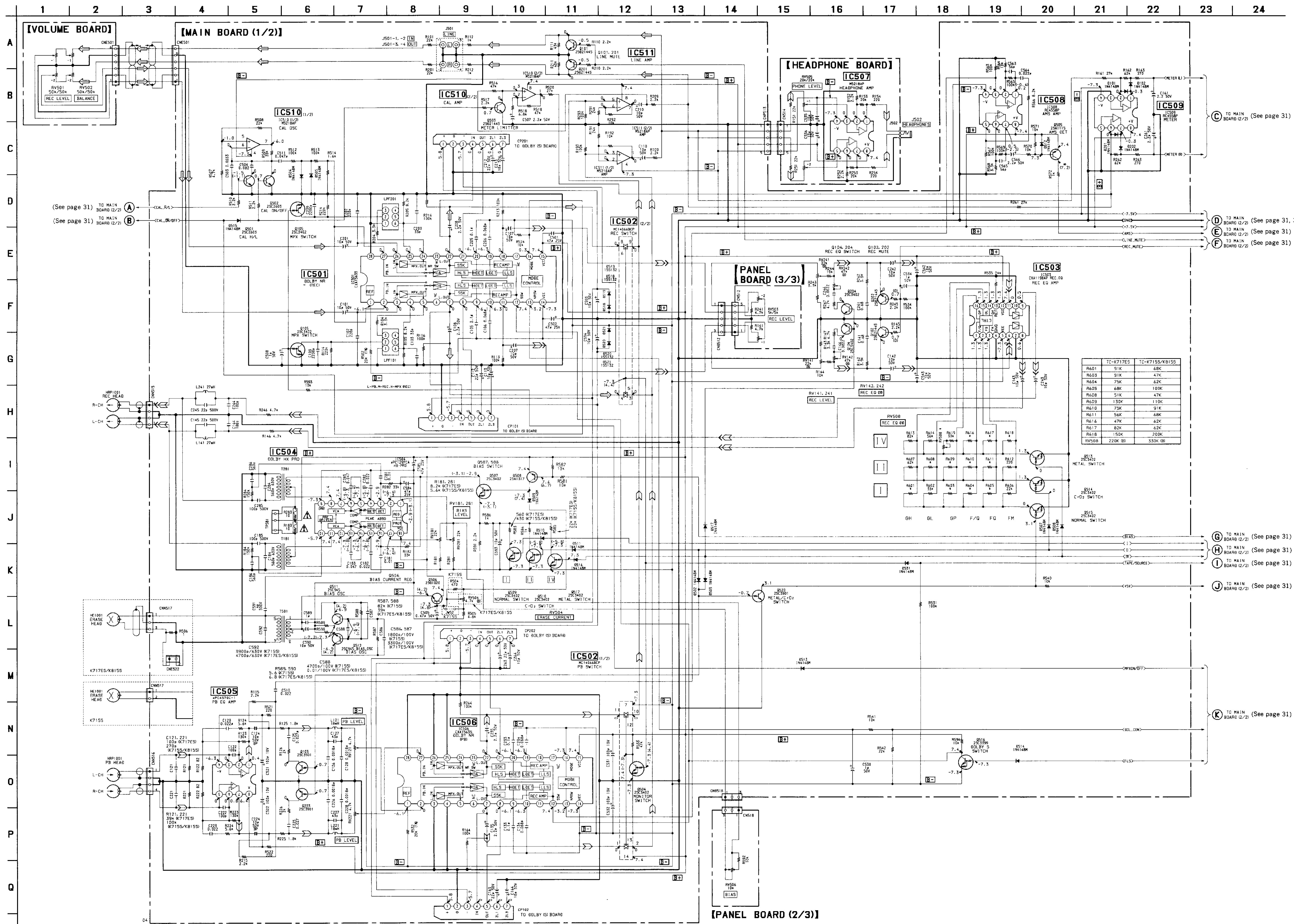
- : parts extracted from the component side.
- : Pattern on the side which is seen.
- Abbreviations
- CND : Canadian model
- G : German model
- AUS : Australian model

5-3. PRINTED WIRING BOARDS—MAIN SECTION— • Refer to page 37 for Semiconductor Lead Layouts.








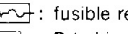
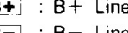
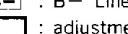
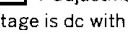
5-4. SCHEMATIC DIAGRAM—AUDIO SECTION—



Note :  
• All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$  :  $\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.  
• All resistors are in  $\Omega$  and 1/4 W or less unless otherwise

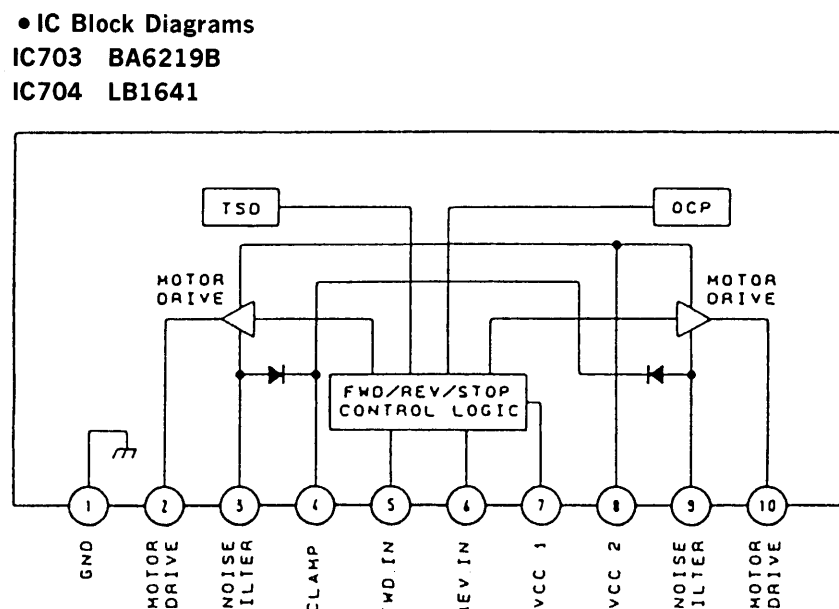
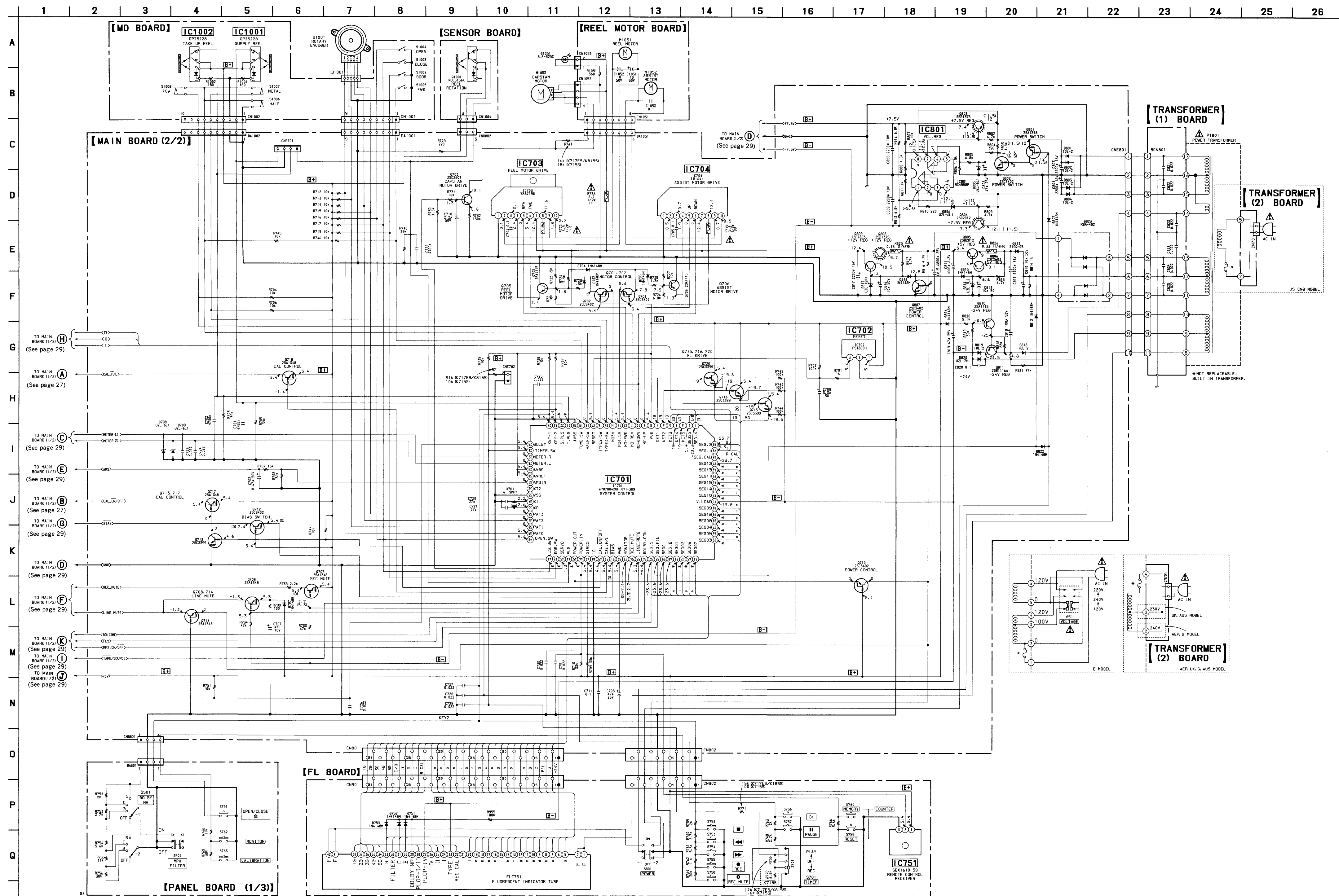
Note :  
The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

Note :  
Les composants identifiés par une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

•  : fusible resistor.  
•  : B+ Line.  
•  : B- Line.  
•  : adjustment for repair.  
• Voltage is dc with respect to ground under no-signal conditions.  
• no mark: PB  
( ): REC  
• Voltages are taken with a VOM (Input Impedance 10M $\Omega$ ). Voltage variations may be noted due to normal production tolerances.  
• Signal path:  
➡ : LINE  
➡ : PB  
➡ : REC



5-5. SCHEMATIC DIAGRAM—SYSTEM CONTROL SECTION—



**Note:**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\mu\text{F}$ :  $\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $1/4\text{ W}$  or less unless otherwise specified.

**Note:**

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

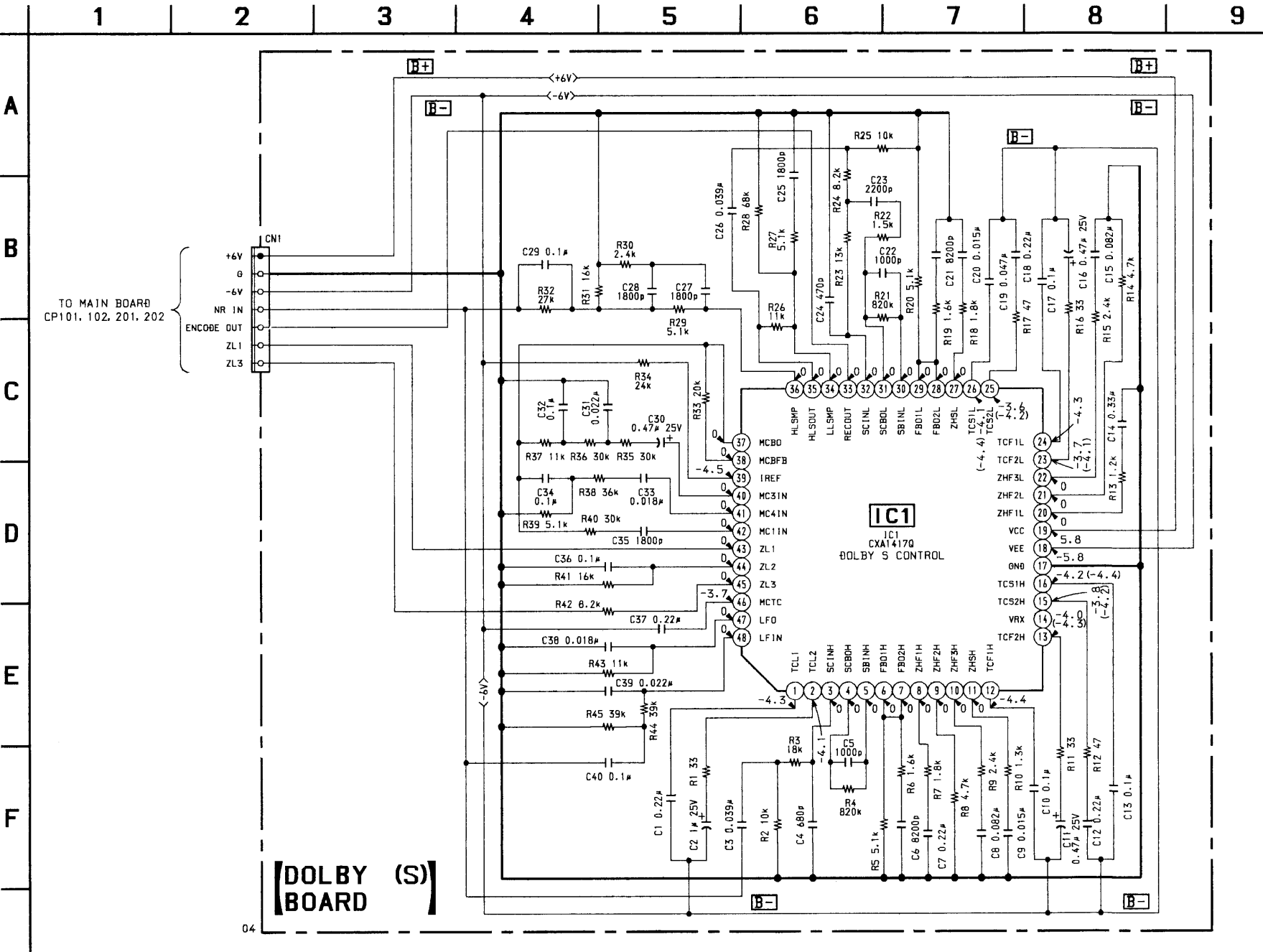
**Note:**

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

•  $\Delta$ : fusible resistor.  
•  $\Delta$ : B+ Line.  
•  $\Delta$ : B- Line.  
• Voltage is dc with respect to ground under no-signal conditions.  
• no mark: PB  
• ( ): REC  
• Voltages are taken with a VOM (Input Impedance 10M $\Omega$ ). Voltage variations may be noted due to normal production tolerances.  
• Abbreviations  
G: Canadian model  
G: German model  
AUS: Australian model



5-6. SCHEMATIC DIAGRAM—DOLBY S SECTION—

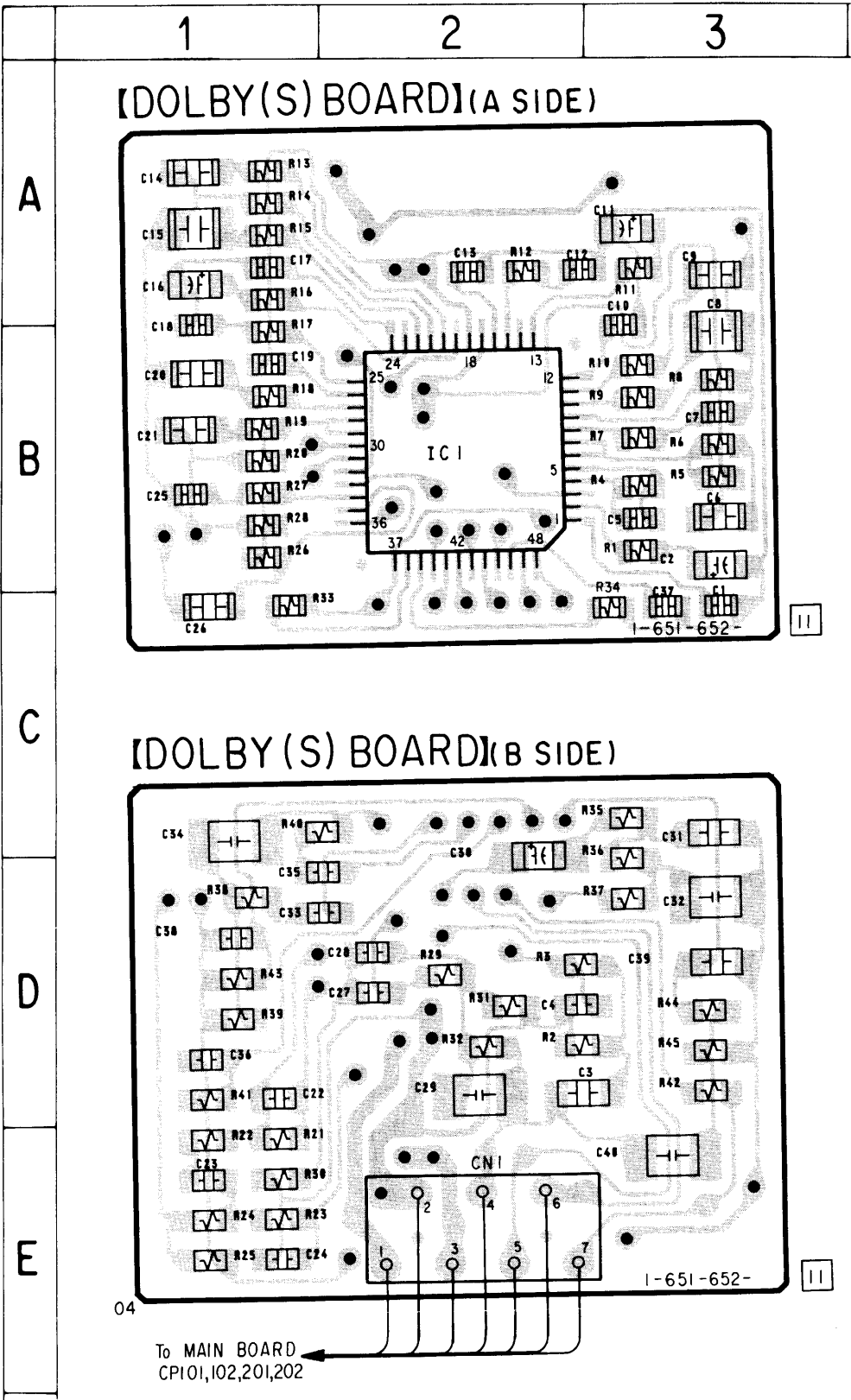


Note on Schematic Diagram:

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF} : \mu\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and 1/4 W or less unless otherwise specified.
- **B+** : B+ Line
- **B-** : B- Line
- Voltage is dc with respect to ground under no-signal conditions.
- no mark: PB
- ( ): REC
- Voltages are taken with a VOM (Input Impedance 10M $\Omega$ ). Voltage variations may be noted due to normal production tolerances.

5-7. PRINTED WIRING BOARD—DOLBY S SECTION—

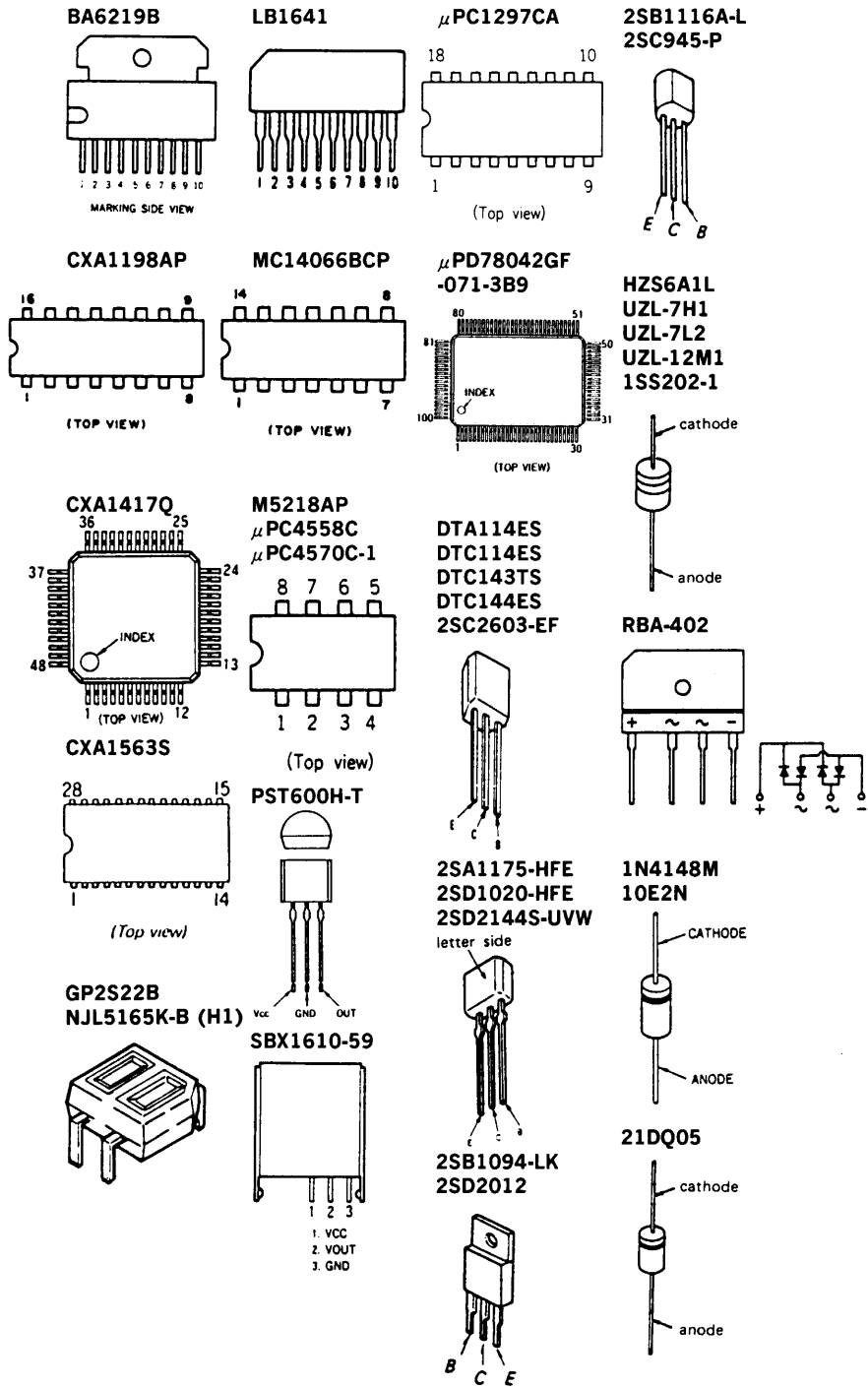
• Refer to page 37 for Semiconductor Lead Layouts.



Note on Printed Wiring Board:

- ○ : parts extracted from the component side.
- ● : Through hole.
- Pattern on the side which is seen. (The other layer's patterns are not indicated.)

5-8. SEMICONDUCTOR LEAD LAYOUTS



SECTION 6  
EXPLODED VIEWS

NOTE:

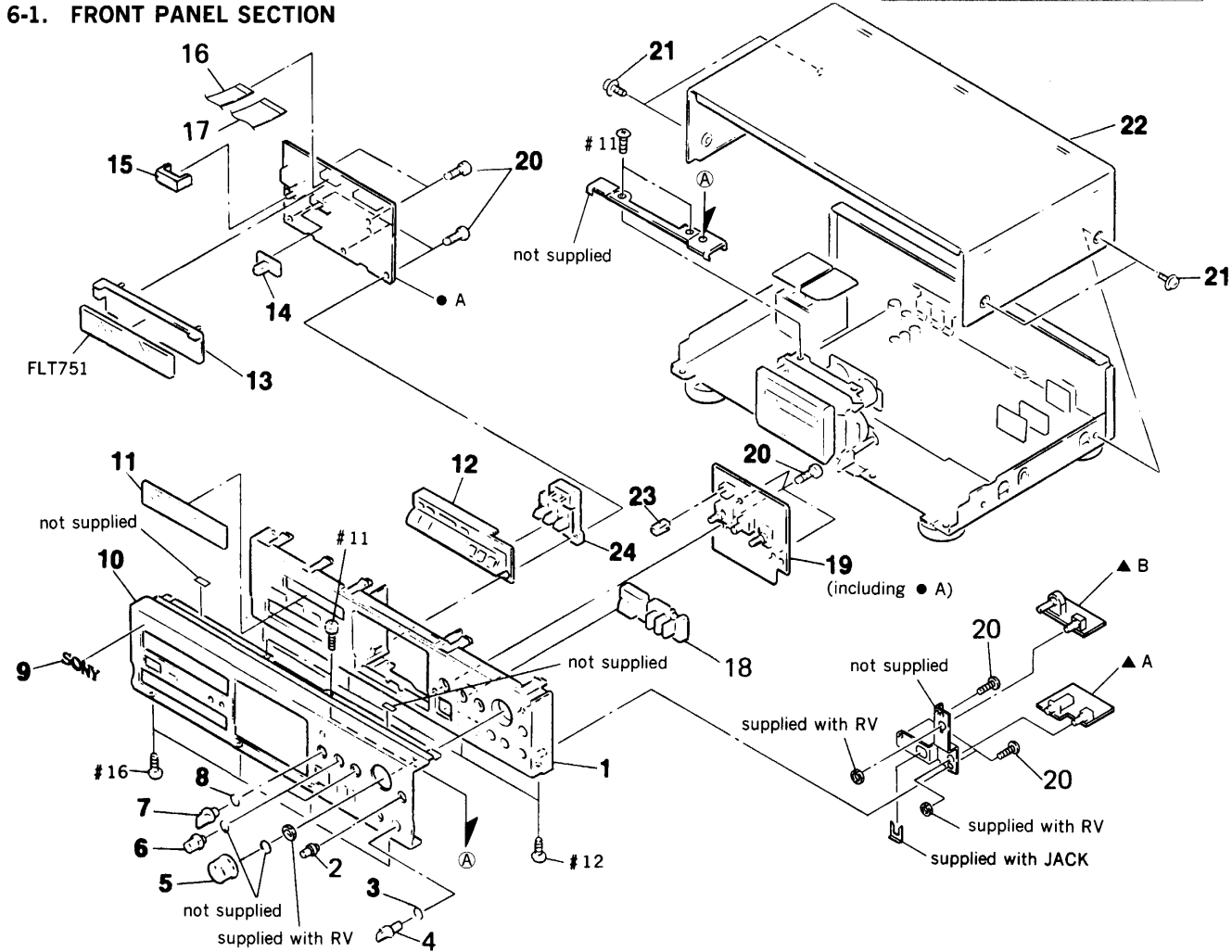
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.

- Color Indication of Appearance Parts  
Example :  
KNOB, BALANCE (WHITE)... (RED)  
Parts Color Cabinet's Color
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviations  
AUS : Australian model  
G : German model

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

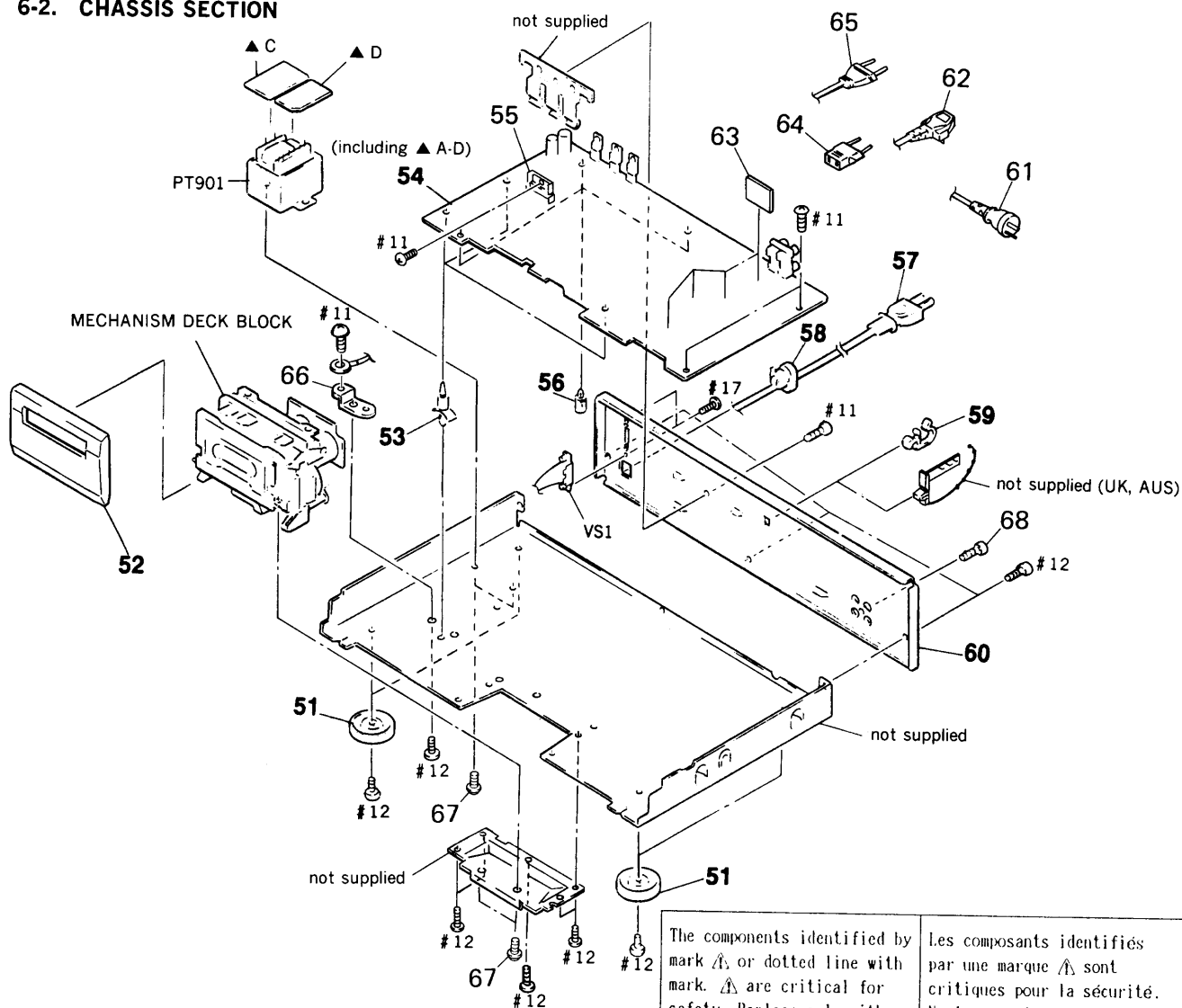
6-1. FRONT PANEL SECTION



| Ref. No. | Part No.     | Description                 | Remark |
|----------|--------------|-----------------------------|--------|
| 1        | 3-386-253-01 | PANEL (BASE)                |        |
| 2        | 3-370-003-01 | KNOB (BAL)                  |        |
| 3        | 3-356-957-01 | SPRING                      |        |
| 4        | 3-350-495-01 | KNOB (VOL)                  |        |
| 5        | 3-367-438-11 | KNOB (REC)                  |        |
| 6        | X-3365-387-1 | KNOB (BAL) ASSY (B)         |        |
| 7        | 4-908-097-21 | KNOB                        |        |
| 8        | 3-350-440-01 | SPRING                      |        |
| 9        | 4-942-568-01 | EMBLEM (NO. 5), SONY        |        |
| 10       | 3-910-630-01 | PANEL, FRONT (US, Canadian) |        |
| 10       | 3-910-630-11 | PANEL, FRONT (E)            |        |
| 10       | 3-910-630-21 | PANEL, FRONT (K717ES:AUS)   |        |
| 10       | 3-910-630-31 | PANEL, FRONT (K815S)        |        |
| 10       | 3-910-630-41 | PANEL, FRONT (K715S)        |        |
| 11       | 3-386-243-11 | WINDOW (M)                  |        |

| Ref. No. | Part No.     | Description                          | Remark |
|----------|--------------|--------------------------------------|--------|
| 12       | 3-386-247-01 | BUTTON (FW)                          |        |
| * 13     | 3-386-245-01 | HOLDER (FL)                          |        |
| 14       | 4-922-518-01 | KNOB (TIMER)                         |        |
| 15       | 3-354-932-01 | BUTTON (POWER)                       |        |
| 16       | 1-534-517-00 | WIRE, FLAT TYPE (11 CORE)            |        |
| 17       | 1-765-149-11 | WIRE (FLAT TYPE) (31 CORE)           |        |
| 18       | 3-386-249-01 | BUTTON (EJ)                          |        |
| * 19     | A-2007-161-A | PANEL BOARD, COMPLETE (K717ES/K815S) |        |
| * 19     | A-2007-231-A | PANEL BOARD, COMPLETE (K715S)        |        |
| 20       | 4-951-620-01 | SCREW (2.6X8), +BVP                  |        |
| 21       | 3-704-366-01 | SCREW (CASE) (M3X8)                  |        |
| 22       | 3-332-578-61 | CASE                                 |        |
| 23       | 3-380-952-01 | BUTTON                               |        |
| 24       | 3-386-248-01 | BUTTON (RE)                          |        |
| FLT751   | 1-517-163-11 | INDICATOR TUBE, FLUORESCENT          |        |

## 6-2. CHASSIS SECTION



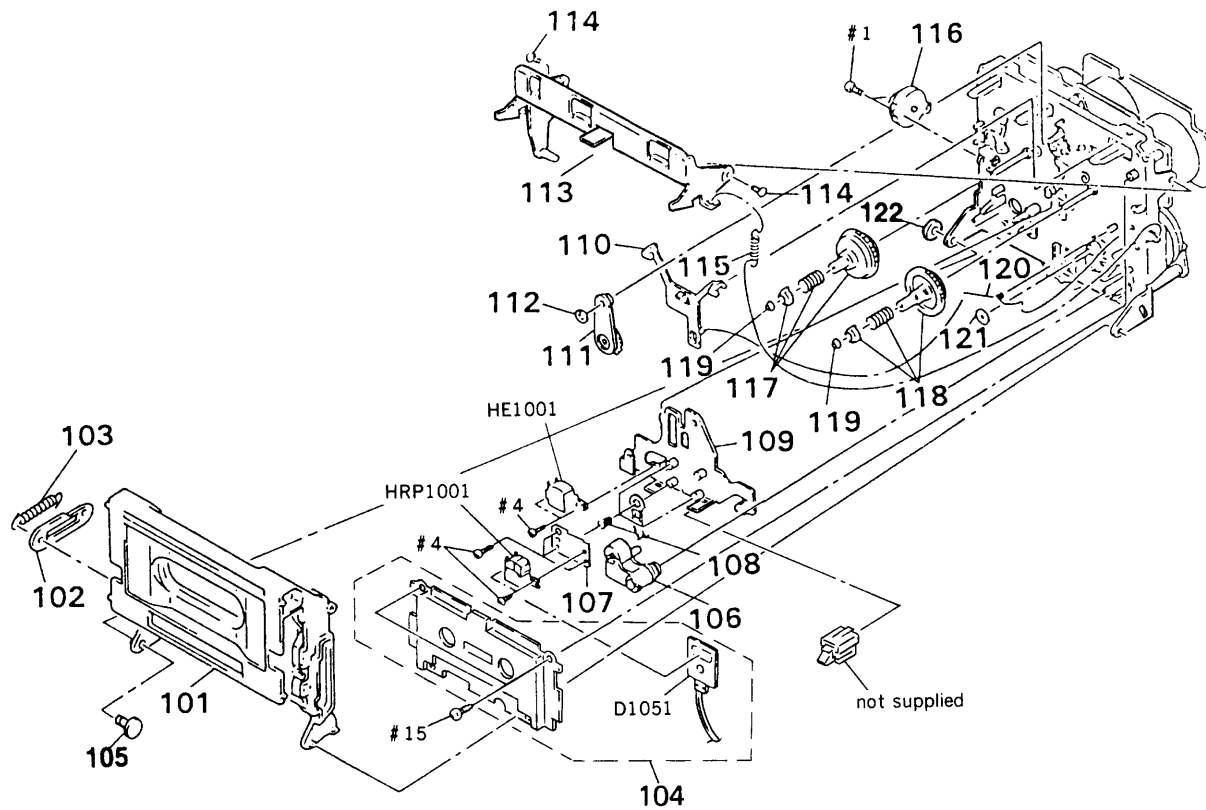
The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

| Ref. No.    | Part No.     | Description                                | Remark |
|-------------|--------------|--|--------|
| 51          | 4-943-148-42 | FOOT (F58175SW)                            |        |
| 52          | X-3367-895-1 | LID ASSY, CASSETTE (US, Canadian)          |        |
| 52          | X-3367-896-1 | LID ASSY, CASSETTE (K717ES:E, AUS)         |        |
| 52          | X-3367-897-1 | LID ASSY, CASSETTE (K815S)                 |        |
| 52          | X-3367-898-1 | LID ASSY, CASSETTE (K715S)                 |        |
| * 53        | 3-346-265-11 | HOLDER, PC BOARD                           |        |
| * 54        | A-2007-151-A | MAIN BOARD, COMPLETE (US, Canadian)        |        |
| * 54        | A-2007-152-A | MAIN BOARD, COMPLETE (E)                   |        |
| * 54        | A-2007-153-A | MAIN BOARD, COMPLETE (K717ES:AUS)          |        |
| * 54        | A-2007-154-A | MAIN BOARD, COMPLETE (K815S)               |        |
| * 54        | A-2007-156-A | MAIN BOARD, COMPLETE (K715S:AEP, G)        |        |
| * 54        | A-2007-157-A | MAIN BOARD, COMPLETE (K715S:UK, AUS)       |        |
| * 55        | 3-356-925-01 | HEAT SINK                                  |        |
| * 56        | 3-669-610-00 | SPACER                                     |        |
| $\Delta$ 57 | 1-551-188-XX | CORD, POWER (E)                            |        |
| $\Delta$ 57 | 1-558-945-21 | CORD, POWER (POLAR. SPT-1) (US, Canadian)  |        |
| * 58        | 3-703-244-00 | BUSHING (2104), CORD (AEP, UK, G, AUS)     |        |
| * 58        | 3-703-571-11 | BUSHING (S) (4516), CORD (US, Canadian, E) |        |
| * 59        | 4-949-235-01 | HOOK (EXCEPT UK, AUS)                      |        |

| Ref. No.       | Part No.     | Description                           | Remark |
|----------------|--------------|---------------------------------------|--------|
| * 60           | 3-910-631-01 | PANEL, BACK (US, Canadian)            |        |
| * 60           | 3-910-631-11 | PANEL, BACK (E)                       |        |
| * 60           | 3-910-631-21 | PANEL, BACK (K717ES:AUS)              |        |
| * 60           | 3-910-631-31 | PANEL, BACK (K815S)                   |        |
| * 60           | 3-910-632-01 | PANEL, BACK (K715S:AEP, G)            |        |
| * 60           | 3-910-632-11 | PANEL, BACK (K715S:UK, AUS)           |        |
| $\Delta$ 61    | 1-696-845-11 | CORD, POWER (AUS)                     |        |
| $\Delta$ 62    | 1-696-586-11 | CORD, POWER (UK)                      |        |
| * 63           | A-2007-173-A | DOLBY (S) BOARD, COMPLETE             |        |
| $\Delta$ 64    | 1-569-007-11 | ADAPTOR, CONVERSION 2P (E)            |        |
| $\Delta$ 65    | 1-575-651-21 | CORD, POWER (AEP, G)                  |        |
| * 66           | 3-332-563-01 | BRACKET (P)                           |        |
| 67             | 4-886-821-11 | SCREW, M3 CASE                        |        |
| 68             | 3-704-515-01 | SCREW (BV/RING)                       |        |
| $\Delta$ PT901 | 1-423-475-11 | TRANSFORMER, POWER (US, Canadian)     |        |
| $\Delta$ PT901 | 1-423-476-11 | TRANSFORMER, POWER (AEP, UK, G, AUS)  |        |
| $\Delta$ PT901 | 1-423-533-11 | TRANSFORMER, POWER (E)                |        |
| $\Delta$ VS1   | 1-692-155-11 | SELECTOR, POWER VOLTAGE (VOLTAGE) (E) |        |

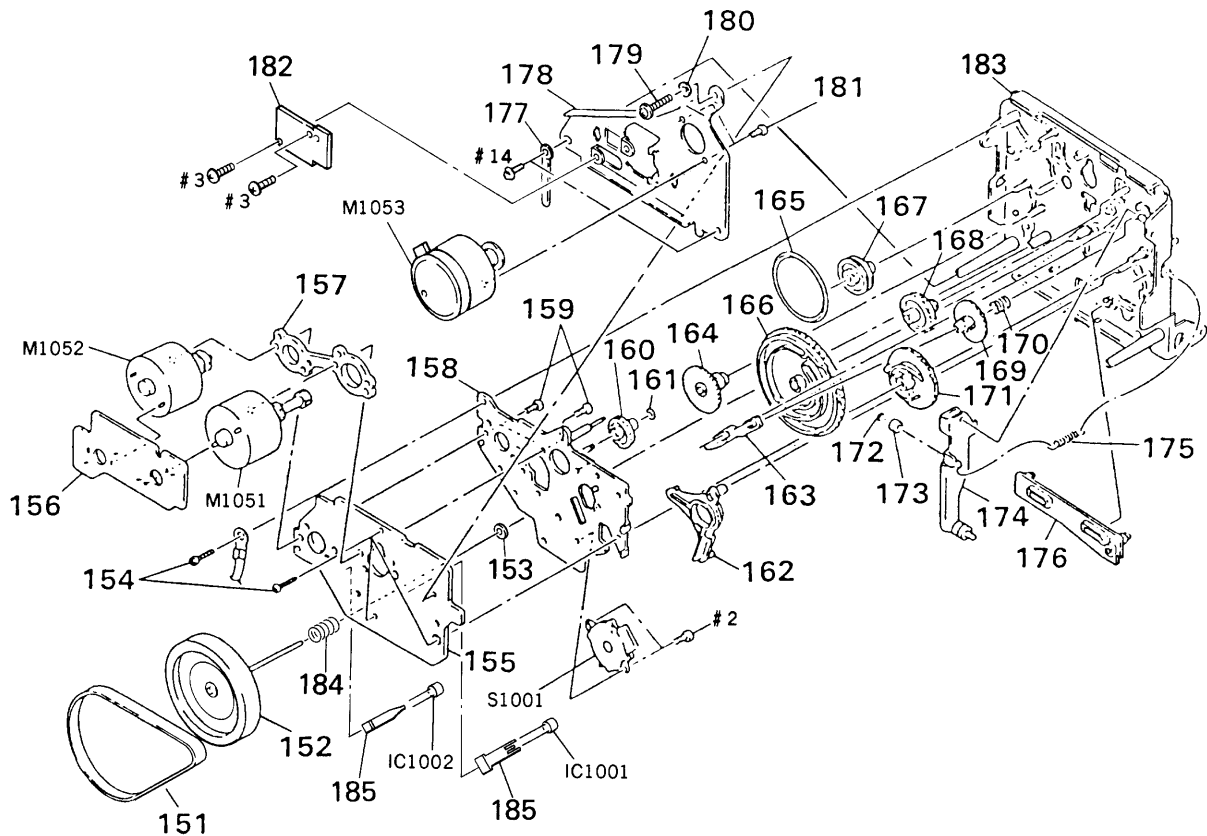
**6-3. MECHANISM DECK SECTION 1**  
**(TCM-200V18: TC-K715S)**



| Ref. No. | Part No.     | Description                   | Remark |
|----------|--------------|-------------------------------|--------|
| 101      | X-3368-527-1 | HOLDER (CD-CS) ASSY, CASSETTE |        |
| * 102    | 3-356-717-01 | LEVER (JOINT)                 |        |
| 103      | 3-356-626-01 | SPRING, TENSION               |        |
| 104      | X-3356-613-1 | PLATE ASSY, ORNAMENTAL        |        |
| 105      | 3-378-341-01 | SHAFT (L) (CASSETTE HOLDER)   |        |
| 106      | X-3356-649-1 | LEVER (PINCH LEVER T) ASSY    |        |
| * 107    | 3-356-742-01 | BRACKET (GUIDE R)             |        |
| 108      | 3-356-659-01 | SPRING (RPH), COMPRESSION     |        |
| 109      | X-3356-648-1 | SLIDER (HEAD CHASSIS V2) ASSY |        |
| 110      | 3-356-614-01 | SLIDER (BRAKE)                |        |
| 111      | X-3356-641-1 | LEVER (FR2) ASSY              |        |
| 112      | 3-669-465-11 | WASHER (1.5), STOPPER         |        |
| * 113    | X-3356-608-1 | LEVER (LIFTER) ASSY           |        |

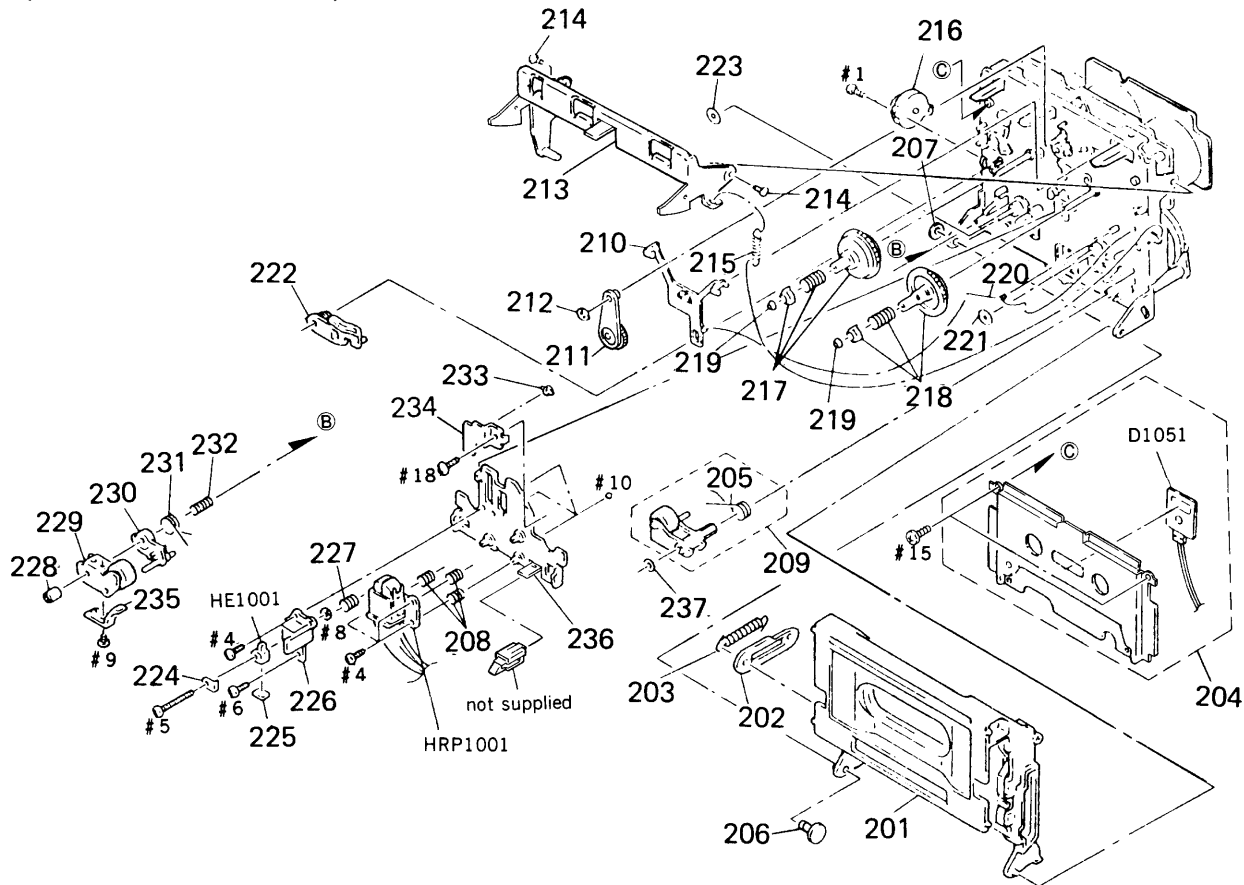
| Ref. No. | Part No.     | Description             | Remark |
|----------|--------------|-------------------------|--------|
| 114      | 3-356-601-11 | SCREW, STEP             |        |
| 115      | 3-356-625-01 | SPRING, TENSION         |        |
| 116      | 3-712-786-01 | DAMPER, OIL             |        |
| 117      | X-3356-628-1 | GEAR (S) ASSY           |        |
| 118      | X-3356-627-1 | GEAR (T) ASSY           |        |
| 119      | 3-362-308-01 | CAP (REEL)              |        |
| 120      | 3-356-619-01 | SPRING (B), TORSION     |        |
| 121      | 3-356-713-01 | WASHER                  |        |
| 122      | 3-558-708-21 | WASHER, STOPPER         |        |
| D1051    | 8-719-980-85 | DIODE SLF325C           |        |
| HE1001   | 1-543-673-11 | HEAD, MAGNETIC (ERASE)  |        |
| HRP1001  | 1-543-733-11 | HEAD, MAGNETIC (REC/PB) |        |

**6-4. MECHANISM DECK SECTION 2**  
(TCM-200V18: TC-K715S)



| Ref. No. | Part No.     | Description            | Remark | Ref. No. | Part No.     | Description                             | Remark |
|----------|--------------|------------------------|--------|----------|--------------|---|--------|
| 151      | 3-356-744-01 | BELT (CAPSTAN V)       |        | 172      | 3-558-708-11 | WASHER, STOPPER                         |        |
| 152      | X-3368-012-1 | FLYWHEEL (V) ASSY      |        | 173      | 3-356-630-01 | ROLLER (LOADING)                        |        |
| 153      | 3-911-245-01 | WASHER (CAPSTAN)       |        | * 174    | X-3356-606-1 | LEVER (LOADING) ASSY                    |        |
| 154      | 3-355-801-01 | SCREW (BTP 2X18)       |        | 175      | 3-356-624-01 | SPRING, TENSION                         |        |
| * 155    | 1-632-740-11 | MD BOARD               |        | 176      | 3-356-653-01 | SLIDER (PAUSE)                          |        |
| * 156    | 1-632-741-11 | REEL MOTOR BOARD       |        | 177      | 3-703-150-11 | STOPPER, WIRING                         |        |
| * 157    | 3-356-628-01 | SPACER (MOTOR)         |        | 178      | X-3368-011-1 | BRACKET ASSY                            |        |
| * 158    | X-3356-602-1 | BRACKET (MOTOR R) ASSY |        | 179      | 3-356-707-01 | SCREW (+PTPH 2X25)                      |        |
| 159      | 3-363-804-01 | SCREW (+P 2.6X6.5)     |        | * 180    | 3-356-718-01 | SPACER (THRUST RETAINER R)              |        |
| 160      | 3-356-702-01 | GEAR (COMMUNICATION B) |        | 181      | 4-885-599-00 | SCREW, FITTING, REINFORCEMENT           |        |
| 161      | 3-669-465-00 | WASHER (1.5), STOPPER  |        | * 182    | 1-651-596-11 | SENSOR BOARD                            |        |
| 162      | 3-356-613-01 | LEVER (MODE)           |        | * 183    | X-3368-013-1 | CHASSIS (V18) COMPLETE ASSY, MECHANICAL |        |
| 163      | 3-356-617-01 | LEVER (SELECTION)      |        | 184      | 3-911-236-01 | SPRING, COMPRESSION                     |        |
| 164      | 3-356-606-01 | GEAR (MODE)            |        | 185      | 3-356-631-01 | HOLDER (SENSOR)                         |        |
| 165      | 3-356-603-01 | BELT (MODE)            |        | IC1001   | 8-749-920-97 | PHOTO SENSOR GP2S22B                    |        |
| 166      | 3-356-747-01 | GEAR (MODE CAM C)      |        | IC1002   | 8-749-920-97 | PHOTO SENSOR GP2S22B                    |        |
| 167      | 3-356-607-01 | PULLEY (MODE)          |        | M1051    | X-3356-638-1 | MOTOR (REEL R) ASSY                     |        |
| 168      | 3-356-703-01 | GEAR (COMMUNICATION C) |        | M1052    | X-3356-604-1 | MOTOR (ASSIST) ASSY                     |        |
| 169      | 3-356-609-01 | GEAR (LOADING)         |        | M1053    | X-3368-029-1 | MOTOR (CAPSTAN V18) ASSY                |        |
| 170      | 3-356-605-01 | SPRING, COMPRESSION    |        | S1001    | 1-466-238-11 | ENCODER, ROTARY                         |        |
| 171      | 3-356-616-01 | GEAR (LOADING CAM)     |        |          |              |   |        |

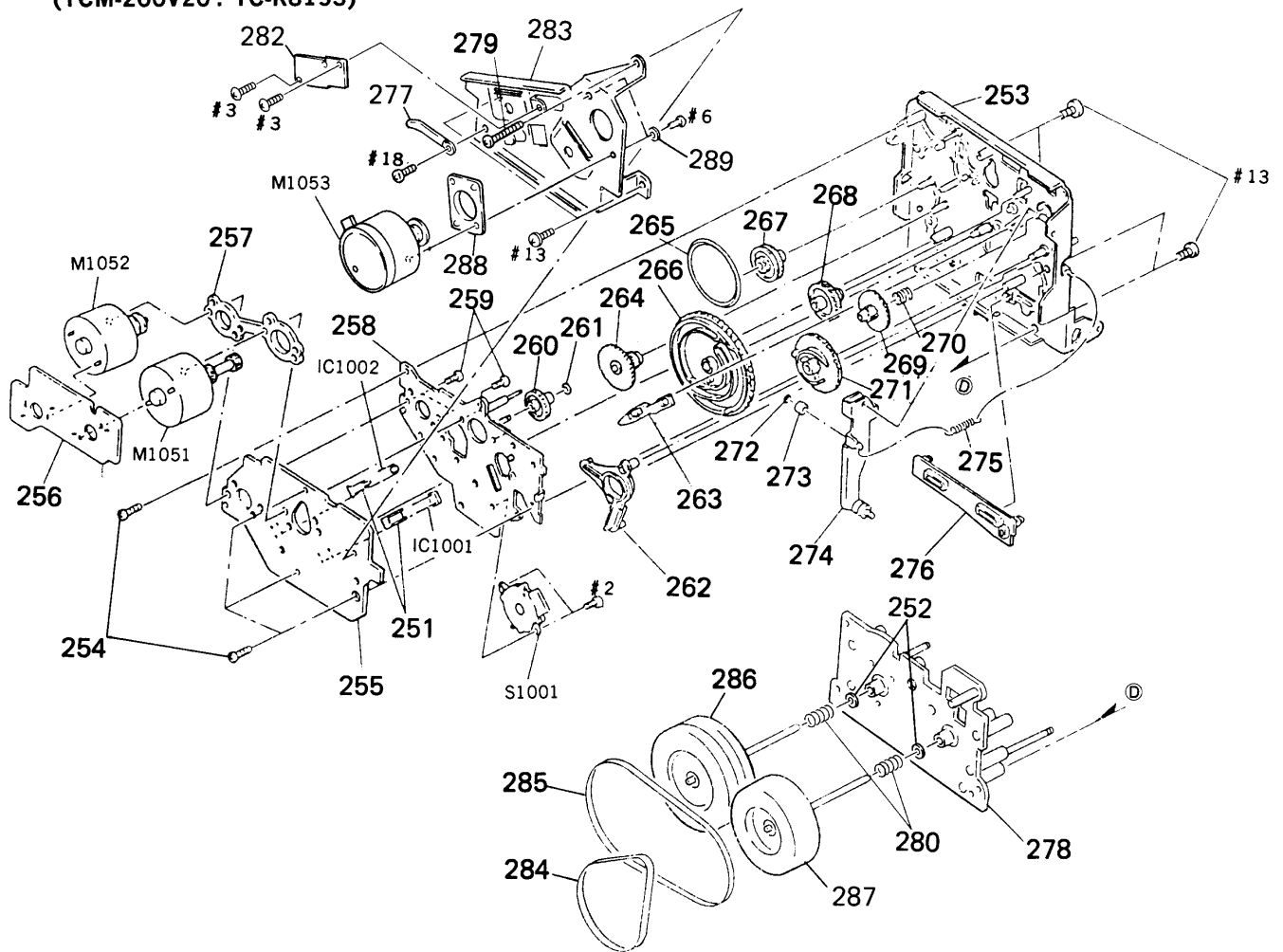
**6-5. MECHANISM DECK SECTION 3**  
**(TCM-200V19: TC-K717ES)**  
**(TCM-200V20: TC-K815S)**



| Ref. No. | Part No.     | Description                     | Remark |
|----------|--------------|---------------------------------|--------|
| 201      | X-3368-527-1 | HOLDER (CD-CS) ASSY, CASSETTE   |        |
| * 202    | 3-356-717-01 | LEVER (JOINT)                   |        |
| 203      | 3-356-626-01 | SPRING, TENSION                 |        |
| 204      | X-3356-613-1 | PLATE ASSY, ORNAMENTAL          |        |
| 205      | 3-356-672-01 | SPRING (PINCH LEVER T), TORSION |        |
| 206      | 3-378-341-01 | SHAFT (L) (CASSETTE HOLDER)     |        |
| 207      | 3-558-708-21 | WASHER, STOPPER                 |        |
| 208      | 3-356-659-01 | SPRING (RPH), COMPRESSION       |        |
| 209      | X-3356-620-1 | LEVER (PINCH LEVER T) ASSY      |        |
| 210      | 3-356-614-01 | SLIDER (BRAKE)                  |        |
| 211      | X-3356-641-1 | LEVER (FR2) ASSY                |        |
| 212      | 3-669-465-11 | WASHER (1.5), STOPPER           |        |
| * 213    | X-3356-608-1 | LEVER (LIFTER) ASSY             |        |
| 214      | 3-356-601-11 | SCREW, STEP                     |        |
| 215      | 3-356-625-01 | SPRING, TENSION                 |        |
| 216      | 3-712-786-01 | DAMPER, OIL                     |        |
| 217      | X-3356-629-1 | GEAR (S) ASSY                   |        |
| 218      | X-3356-627-1 | GEAR (T) ASSY                   |        |
| 219      | 3-362-308-01 | CAP (REEL)                      |        |
| 220      | 3-356-619-01 | SPRING (B), TORSION             |        |
| 221      | 3-332-763-01 | RING, OIL RESERVOIR             |        |

| Ref. No. | Part No.     | Description                      | Remark |
|----------|--------------|----------------------------------|--------|
| 222      | X-3356-623-1 | LEVER (BT) ASSY                  |        |
| 223      | 3-356-713-01 | WASHER                           |        |
| 224      | 3-318-433-01 | SPRING                           |        |
| * 225    | 1-608-268-00 | ERASE HEAD BOARD                 |        |
| * 226    | 3-576-977-00 | BRACKET, ERASE HEAD              |        |
| 227      | 3-564-121-00 | SPRING, COMPRESSION              |        |
| 228      | 3-356-652-01 | NUT (PINCH LEVER S)              |        |
| 229      | X-3356-621-1 | LEVER (PINCH LEVER S) ASSY       |        |
| 230      | 3-356-660-01 | LEVER (PS)                       |        |
| 231      | 3-356-661-01 | SPRING (PINCH LEVER S), TORSION  |        |
| 232      | 3-356-657-01 | SPRING (PS), COMPRESSION         |        |
| 233      | 3-367-775-01 | ROLLER (HEAD CHASSIS)            |        |
| 234      | 3-356-656-11 | SPRING (HEAD PC BOARD), LEAF     |        |
| 235      | 3-389-445-01 | GUIDE (SL), TAPE                 |        |
| 236      | X-3362-861-1 | SLIDER (HEAD CHASSIS V4) ASSY    |        |
| 237      | 3-669-596-01 | WASHER (2.3), STOPPER            |        |
| D1051    | 8-719-980-85 | DIODE SLF325C                    |        |
| HE1001   | 1-543-836-11 | HEAD, MAGNETIC (ERASE)           |        |
| HRP1001  | 1-543-834-11 | HEAD, MAGNETIC (REC/PB) (K815S)  |        |
| HRP1001  | 1-543-835-11 | HEAD, MAGNETIC (REC/PB) (K717ES) |        |

**6-6. MECHANISM DECK SECTION 4**  
**(TCM-200V19: TC-K717ES)**  
**(TCM-200V20: TC-K815S)**



| Ref. No. | Part No. | Description                                | Remark |
|----------|----------|--|--------|
|          | 251      | 3-356-631-01 HOLDER (SENSOR)               |        |
|          | 252      | 3-911-245-01 WASHER (CAPSTAN)              |        |
| *        | 253      | X-3362-862-1 CHASSIS (V4) ASSY, MECHANICAL |        |
|          | 254      | 3-355-801-01 SCREW (BTP 2X18)              |        |
| *        | 255      | 1-632-740-11 MD BOARD                      |        |
|          |          |  |        |
| *        | 256      | 1-632-741-11 REEL MOTOR BOARD              |        |
| *        | 257      | 3-356-628-01 SPACER (MOTOR)                |        |
| *        | 258      | X-3356-616-1 BRACKET (MOTOR D) ASSY        |        |
|          | 259      | 3-363-804-01 SCREW (+P 2.6X6.5)            |        |
|          | 260      | 3-356-702-01 GEAR (COMMUNICATION B)        |        |
|          |          |  |        |
|          | 261      | 3-669-465-00 WASHER (1.5), STOPPER         |        |
|          | 262      | 3-356-613-01 LEVER (MODE)                  |        |
|          | 263      | 3-356-617-01 LEVER (SELECTION)             |        |
|          | 264      | 3-356-606-01 GEAR (MODE)                   |        |
|          | 265      | 3-356-603-01 BELT (MODE)                   |        |
|          |          |  |        |
|          | 266      | 3-356-747-01 GEAR (MODE CAM C)             |        |
|          | 267      | 3-356-607-01 PULLEY (MODE)                 |        |
|          | 268      | 3-356-703-01 GEAR (COMMUNICATION C)        |        |
|          | 269      | 3-356-609-01 GEAR (LOADING)                |        |
|          | 270      | 3-356-605-01 SPRING, COMPRESSION           |        |
|          |          |  |        |
|          | 271      | 3-356-616-01 GEAR (LOADING CAM)            |        |
|          | 272      | 3-558-708-11 WASHER, STOPPER               |        |

| Ref. No. | Part No. | Description                              | Remark |
|----------|----------|--|--------|
|          | 273      | 3-356-630-01 ROLLER (LOADING)            |        |
| *        | 274      | X-3356-606-1 LEVER (LOADING) ASSY        |        |
|          | 275      | 3-356-624-01 SPRING, TENSION             |        |
|          | 276      | 3-356-653-01 SLIDER (PAUSE)              |        |
|          | 277      | 3-703-150-11 STOPPER, WIRING             |        |
|          |          |  |        |
| *        | 278      | X-3362-865-4 BRACKET (CAPSTAN BASE) ASSY |        |
|          | 279      | 3-356-707-01 SCREW (+PTPHW 2X25)         |        |
|          | 280      | 3-911-236-01 SPRING, COMPRESSION         |        |
| *        | 282      | 1-651-596-11 SENSOR BOARD                |        |
|          | 283      | X-3368-006-1 BRACKET ASSY                |        |
|          |          |  |        |
|          | 284      | 3-367-774-01 BELT (CAPSTAN V4)           |        |
|          | 285      | 3-364-600-01 BELT (CAPSTAN)              |        |
|          | 286      | X-3368-009-1 FLYWHEEL (C-T) ASSY         |        |
|          | 287      | X-3368-010-1 FLYWHEEL (C-S) ASSY         |        |
|          | 288      | 3-911-241-01 SPACER (A)                  |        |
|          |          |  |        |
|          | 289      | 3-911-242-01 SPACER (B)                  |        |
|          | IC1001   | 8-749-920-97 PHOTO SENSOR GP2S22B        |        |
|          | IC1002   | 8-749-920-97 PHOTO SENSOR GP2S22B        |        |
|          | M1051    | X-3356-638-1 MOTOR (REEL R) ASSY         |        |
|          | M1052    | X-3356-604-1 MOTOR (ASSIST) ASSY         |        |
|          |          |  |        |
|          | M1053    | X-3368-008-1 MOTOR (CAPSTAN V19) ASSY    |        |
|          | S1001    | 1-466-238-11 ENCODER, ROTARY             |        |

# DOLBY (S)

## SECTION 7 ELECTRICAL PARTS LIST

### NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS  
All resistors are in ohms.  
METAL: Metal-film resistor.  
METAL OXIDE: Metal oxide-film resistor.  
F: nonflammable

- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS  
In each case, u:  $\mu$ , for example:  
uA...:  $\mu$ A... uPA...:  $\mu$ PA...  
uPB...:  $\mu$ PB... uPC...:  $\mu$ PC... uPD...:  $\mu$ PD...
- CAPACITORS  
uF:  $\mu$ F
- COILS  
uH:  $\mu$ H

When indicating parts by reference number, please include the board.

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

### ● Abbreviations

AUS : Australian model  
G : German model

| Ref. No. | Part No.     | Description                        | Remark   |
|----------|--------------|------------------------------------|----------|
| *        | A-2007-173-A | DOLBY (S) BOARD, COMPLETE<br>***** |          |
|          |              | < CAPACITOR >                      |          |
| C1       | 1-164-222-11 | CERAMIC CHIP 0.22uF                | 25V      |
| C2       | 1-135-177-21 | TANTALUM CHIP 1uF                  | 20% 20V  |
| C3       | 1-104-558-11 | FILM CHIP 0.039uF                  | 5% 16V   |
| C4       | 1-163-007-11 | CERAMIC CHIP 680PF                 | 10% 50V  |
| C5       | 1-163-009-11 | CERAMIC CHIP 0.001uF               | 10% 50V  |
| C6       | 1-164-717-11 | CERAMIC CHIP 0.0082uF              | 5% 50V   |
| C7       | 1-164-222-11 | CERAMIC CHIP 0.22uF                | 25V      |
| C8       | 1-104-562-11 | FILM CHIP 0.082uF                  | 5% 16V   |
| C9       | 1-104-553-11 | FILM CHIP 0.015uF                  | 5% 16V   |
| C10      | 1-165-319-11 | CERAMIC CHIP 0.1uF                 | 50V      |
| C11      | 1-135-145-11 | TANTALUM CHIP 0.47uF               | 10% 35V  |
| C12      | 1-164-222-11 | CERAMIC CHIP 0.22uF                | 25V      |
| C13      | 1-165-319-11 | CERAMIC CHIP 0.1uF                 | 50V      |
| C14      | 1-162-568-11 | CERAMIC CHIP 0.33uF                | 10% 16V  |
| C15      | 1-104-562-11 | FILM CHIP 0.082uF                  | 5% 16V   |
| C16      | 1-135-145-11 | TANTALUM CHIP 0.47uF               | 10% 35V  |
| C17      | 1-165-319-11 | CERAMIC CHIP 0.1uF                 | 50V      |
| C18      | 1-164-222-11 | CERAMIC CHIP 0.22uF                | 25V      |
| C19      | 1-163-035-00 | CERAMIC CHIP 0.047uF               | 50V      |
| C20      | 1-104-553-11 | FILM CHIP 0.015uF                  | 5% 16V   |
| C21      | 1-164-717-11 | CERAMIC CHIP 0.0082uF              | 5% 50V   |
| C22      | 1-163-009-11 | CERAMIC CHIP 0.001uF               | 10% 50V  |
| C23      | 1-164-161-11 | CERAMIC CHIP 0.0022uF              | 10% 100V |
| C24      | 1-163-005-11 | CERAMIC CHIP 470PF                 | 10% 50V  |
| C25      | 1-163-012-00 | CERAMIC CHIP 0.0018uF              | 10% 50V  |
| C26      | 1-104-558-11 | FILM CHIP 0.039uF                  | 5% 16V   |
| C27      | 1-163-012-00 | CERAMIC CHIP 0.0018uF              | 10% 50V  |
| C28      | 1-163-012-00 | CERAMIC CHIP 0.0018uF              | 10% 50V  |
| C29      | 1-104-563-11 | FILM CHIP 0.1uF                    | 5% 16V   |
| C30      | 1-135-145-11 | TANTALUM CHIP 0.47uF               | 10% 35V  |
| C31      | 1-104-555-11 | FILM CHIP 0.022uF                  | 5% 16V   |
| C32      | 1-104-563-11 | FILM CHIP 0.1uF                    | 5% 16V   |
| C33      | 1-163-024-00 | CERAMIC CHIP 0.018uF               | 10% 50V  |
| C34      | 1-104-563-11 | FILM CHIP 0.1uF                    | 5% 16V   |
| C35      | 1-163-012-00 | CERAMIC CHIP 0.0018uF              | 10% 50V  |

| Ref. No. | Part No.     | Description          | Remark  |
|----------|--------------|----------------------|---------|
| C36      | 1-165-319-11 | CERAMIC CHIP 0.1uF   | 50V     |
| C37      | 1-164-222-11 | CERAMIC CHIP 0.22uF  | 25V     |
| C38      | 1-163-024-00 | CERAMIC CHIP 0.018uF | 10% 50V |
| C39      | 1-104-555-11 | FILM CHIP 0.022uF    | 5% 16V  |
| C40      | 1-104-563-11 | FILM CHIP 0.1uF      | 5% 16V  |
|          |              | < CONNECTOR >        |         |
| CN1      | 1-695-092-11 | SOCKET, CONNECTOR 7P |         |
|          |              | < IC >               |         |
| IC1      | 8-752-056-51 | IC CXA1417Q          |         |
|          |              | < RESISTOR >         |         |
| R1       | 1-208-353-41 | METAL GLAZE 33 2%    | 1/10W   |
| R2       | 1-216-675-11 | METAL CHIP 10K 0.5%  | 1/10W   |
| R3       | 1-208-812-11 | METAL GLAZE 18K 2%   | 1/10W   |
| R4       | 1-208-556-41 | METAL GLAZE 820K 2%  | 1/10W   |
| R5       | 1-216-668-11 | METAL CHIP 5.1K 0.5% | 1/10W   |
| R6       | 1-208-442-41 | METAL GLAZE 1.6K 2%  | 1/10W   |
| R7       | 1-216-657-11 | METAL CHIP 1.8K 0.5% | 1/10W   |
| R8       | 1-216-667-11 | METAL CHIP 4.7K 0.5% | 1/10W   |
| R9       | 1-208-446-41 | METAL GLAZE 2.4K 2%  | 1/10W   |
| R10      | 1-208-440-41 | METAL GLAZE 1.3K 2%  | 1/10W   |
| R11      | 1-208-353-41 | METAL GLAZE 33 2%    | 1/10W   |
| R12      | 1-208-357-41 | METAL GLAZE 47 2%    | 1/10W   |
| R13      | 1-216-653-11 | METAL CHIP 1.2K 0.5% | 1/10W   |
| R14      | 1-216-667-11 | METAL CHIP 4.7K 0.5% | 1/10W   |
| R15      | 1-208-446-41 | METAL GLAZE 2.4K 2%  | 1/10W   |
| R16      | 1-208-353-41 | METAL GLAZE 33 2%    | 1/10W   |
| R17      | 1-208-357-41 | METAL GLAZE 47 2%    | 1/10W   |
| R18      | 1-216-657-11 | METAL CHIP 1.8K 0.5% | 1/10W   |
| R19      | 1-208-442-41 | METAL GLAZE 1.6K 2%  | 1/10W   |
| R20      | 1-216-668-11 | METAL CHIP 5.1K 0.5% | 1/10W   |
| R21      | 1-208-556-41 | METAL GLAZE 820K 2%  | 1/10W   |
| R22      | 1-216-655-11 | METAL CHIP 1.5K 0.5% | 1/10W   |
| R23      | 1-216-678-11 | METAL CHIP 13K 0.5%  | 1/10W   |
| R24      | 1-216-673-11 | METAL CHIP 8.2K 0.5% | 1/10W   |
| R25      | 1-216-675-11 | METAL CHIP 10K 0.5%  | 1/10W   |
| R26      | 1-216-676-11 | METAL CHIP 11K 0.5%  | 1/10W   |



| Ref. No.      | Part No.     | Description                          | Remark   |      |       |  |
|---------------|--------------|--------------------------------------|----------|------|-------|--|
| R27           | 1-216-668-11 | METAL CHIP                           | 5.1K     | 0.5% | 1/10W |  |
| R28           | 1-216-695-11 | METAL CHIP                           | 68K      | 0.5% | 1/10W |  |
| R29           | 1-216-668-11 | METAL CHIP                           | 5.1K     | 0.5% | 1/10W |  |
| R30           | 1-208-446-41 | METAL GLAZE                          | 2.4K     | 2%   | 1/10W |  |
| R31           | 1-216-680-11 | METAL CHIP                           | 16K      | 0.5% | 1/10W |  |
| R32           | 1-216-685-11 | METAL CHIP                           | 27K      | 0.5% | 1/10W |  |
| R33           | 1-208-469-41 | METAL GLAZE                          | 20K      | 2%   | 1/10W |  |
| R34           | 1-216-684-11 | METAL CHIP                           | 24K      | 0.5% | 1/10W |  |
| R35           | 1-208-521-41 | METAL GLAZE                          | 30K      | 2%   | 1/10W |  |
| R36           | 1-208-521-41 | METAL GLAZE                          | 30K      | 2%   | 1/10W |  |
| R37           | 1-216-676-11 | METAL CHIP                           | 11K      | 0.5% | 1/10W |  |
| R38           | 1-208-523-41 | METAL GLAZE                          | 36K      | 2%   | 1/10W |  |
| R39           | 1-216-668-11 | METAL CHIP                           | 5.1K     | 0.5% | 1/10W |  |
| R40           | 1-208-521-41 | METAL GLAZE                          | 30K      | 2%   | 1/10W |  |
| R41           | 1-216-680-11 | METAL CHIP                           | 16K      | 0.5% | 1/10W |  |
| R42           | 1-216-673-11 | METAL CHIP                           | 8.2K     | 0.5% | 1/10W |  |
| R43           | 1-216-676-11 | METAL CHIP                           | 11K      | 0.5% | 1/10W |  |
| R44           | 1-216-689-11 | METAL CHIP                           | 39K      | 0.5% | 1/10W |  |
| R45           | 1-216-689-11 | METAL CHIP                           | 39K      | 0.5% | 1/10W |  |
| *****         |              |                                      |          |      |       |  |
| *             | A-2007-151-A | MAIN BOARD, COMPLETE (US, Canadian)  |          |      |       |  |
| *             | A-2007-152-A | MAIN BOARD, COMPLETE (E)             |          |      |       |  |
| *             | A-2007-153-A | MAIN BOARD, COMPLETE (K717ES:AUS)    |          |      |       |  |
| *             | A-2007-154-A | MAIN BOARD, COMPLETE (K815S)         |          |      |       |  |
| *             | A-2007-156-A | MAIN BOARD, COMPLETE (K715S:AEP, G)  |          |      |       |  |
| *             | A-2007-157-A | MAIN BOARD, COMPLETE (K715S:UK, AUS) |          |      |       |  |
| *****         |              |                                      |          |      |       |  |
| *             | 3-356-925-01 | HEAT SINK                            |          |      |       |  |
|               | 7-682-547-09 | SCREW +BVT 3X6 (S)                   |          |      |       |  |
| < CAPACITOR > |              |                                      |          |      |       |  |
| C101          | 1-126-059-11 | ELECT                                | 10uF     | 20%  | 50V   |  |
| C102          | 1-162-286-31 | CERAMIC                              | 220PF    | 10%  | 50V   |  |
| C103          | 1-162-211-31 | CERAMIC                              | 33PF     | 5%   | 50V   |  |
| C105          | 1-136-165-00 | FILM                                 | 0.1uF    | 5%   | 50V   |  |
| C106          | 1-136-163-00 | FILM                                 | 0.068uF  | 5%   | 50V   |  |
| C107          | 1-126-059-11 | ELECT                                | 10uF     | 20%  | 50V   |  |
| C108          | 1-126-045-11 | ELECT                                | 2.2uF    | 20%  | 50V   |  |
| C109          | 1-161-375-00 | CERAMIC                              | 0.0022uF | 20%  | 50V   |  |
| C110          | 1-126-059-11 | ELECT                                | 10uF     | 20%  | 50V   |  |
| C112          | 1-124-916-11 | ELECT                                | 22uF     | 20%  | 63V   |  |
| C113          | 1-124-907-11 | ELECT                                | 10uF     | 20%  | 50V   |  |
| C121          | 1-110-335-11 | MYLAR<br>(K717ES)                    | 100PF    | 5%   | 50V   |  |
| C121          | 1-110-340-11 | MYLAR<br>(K715S/K815S)               | 270PF    | 5%   | 50V   |  |
| C122          | 1-162-282-31 | CERAMIC                              | 100PF    | 10%  | 50V   |  |
| C123          | 1-130-487-00 | MYLAR                                | 0.022uF  | 5%   | 50V   |  |

| Ref. No. | Part No.     | Description            | Remark   |     |      |  |
|----------|--------------|------------------------|----------|-----|------|--|
| C124     | 1-124-657-00 | ELECT                  | 10uF     | 20% | 50V  |  |
| C125     | 1-130-488-00 | MYLAR                  | 0.027uF  | 5%  | 50V  |  |
| C126     | 1-130-474-00 | MYLAR                  | 0.0018uF | 5%  | 50V  |  |
| C127     | 1-102-966-00 | CERAMIC                | 43PF     | 5%  | 50V  |  |
| C128     | 1-130-474-00 | MYLAR                  | 0.0018uF | 5%  | 50V  |  |
| C133     | 1-136-165-00 | FILM                   | 0.1uF    | 5%  | 50V  |  |
| C134     | 1-136-163-00 | FILM                   | 0.068uF  | 5%  | 50V  |  |
| C135     | 1-126-045-11 | ELECT                  | 2.2uF    | 20% | 50V  |  |
| C141     | 1-136-175-00 | FILM                   | 0.68uF   | 5%  | 50V  |  |
| C142     | 1-126-059-11 | ELECT                  | 10uF     | 20% | 50V  |  |
| C143     | 1-126-059-11 | ELECT                  | 10uF     | 20% | 50V  |  |
| C144     | 1-110-338-51 | MYLAR                  | 180PF    | 5%  | 50V  |  |
| C145     | 1-107-210-00 | MICA                   | 22PF     | 5%  | 500V |  |
| C146     | 1-130-475-00 | MYLAR                  | 0.0022uF | 5%  | 50V  |  |
| C161     | 1-124-925-11 | ELECT                  | 2.2uF    | 20% | 100V |  |
| C163     | 1-124-916-11 | ELECT                  | 22uF     | 20% | 63V  |  |
| C164     | 1-124-907-11 | ELECT                  | 10uF     | 20% | 50V  |  |
| C181     | 1-136-153-00 | FILM                   | 0.01uF   | 5%  | 50V  |  |
| C182     | 1-136-157-00 | FILM                   | 0.022uF  | 5%  | 50V  |  |
| C183     | 1-136-161-00 | FILM                   | 0.047uF  | 5%  | 50V  |  |
| C184     | 1-136-803-11 | FILM                   | 560PF    | 5%  | 630V |  |
| C185     | 1-107-169-00 | MICA                   | 100PF    | 5%  | 500V |  |
| C186     | 1-130-468-00 | MYLAR                  | 560PF    | 5%  | 50V  |  |
| C201     | 1-126-059-11 | ELECT                  | 10uF     | 20% | 50V  |  |
| C202     | 1-162-286-31 | CERAMIC                | 220PF    | 10% | 50V  |  |
| C203     | 1-162-211-31 | CERAMIC                | 33PF     | 5%  | 50V  |  |
| C205     | 1-136-165-00 | FILM                   | 0.1uF    | 5%  | 50V  |  |
| C206     | 1-136-163-00 | FILM                   | 0.068uF  | 5%  | 50V  |  |
| C207     | 1-126-059-11 | ELECT                  | 10uF     | 20% | 50V  |  |
| C208     | 1-126-045-11 | ELECT                  | 2.2uF    | 20% | 50V  |  |
| C209     | 1-161-375-00 | CERAMIC                | 0.0022uF | 20% | 50V  |  |
| C210     | 1-126-059-11 | ELECT                  | 10uF     | 20% | 50V  |  |
| C212     | 1-124-916-11 | ELECT                  | 22uF     | 20% | 63V  |  |
| C213     | 1-124-907-11 | ELECT                  | 10uF     | 20% | 50V  |  |
| C221     | 1-110-335-11 | MYLAR<br>(K717ES)      | 100PF    | 5%  | 50V  |  |
| C221     | 1-110-340-11 | MYLAR<br>(K715S/K815S) | 270PF    | 5%  | 50V  |  |
| C222     | 1-162-282-31 | CERAMIC                | 100PF    | 10% | 50V  |  |
| C223     | 1-130-487-00 | MYLAR                  | 0.022uF  | 5%  | 50V  |  |
| C224     | 1-124-657-00 | ELECT                  | 10uF     | 20% | 50V  |  |
| C225     | 1-130-488-00 | MYLAR                  | 0.027uF  | 5%  | 50V  |  |
| C226     | 1-130-474-00 | MYLAR                  | 0.0018uF | 5%  | 50V  |  |
| C227     | 1-102-966-00 | CERAMIC                | 43PF     | 5%  | 50V  |  |
| C228     | 1-130-474-00 | MYLAR                  | 0.0018uF | 5%  | 50V  |  |
| C233     | 1-136-165-00 | FILM                   | 0.1uF    | 5%  | 50V  |  |
| C234     | 1-136-163-00 | FILM                   | 0.068uF  | 5%  | 50V  |  |
| C235     | 1-126-045-11 | ELECT                  | 2.2uF    | 20% | 50V  |  |
| C241     | 1-136-175-00 | FILM                   | 0.68uF   | 5%  | 50V  |  |

## MAIN

| Ref. No. | Part No.     | Description            | Remark   |     |      |
|----------|--------------|------------------------|----------|-----|------|
| C242     | 1-126-059-11 | ELECT                  | 10uF     | 20% | 50V  |
| C243     | 1-126-059-11 | ELECT                  | 10uF     | 20% | 50V  |
| C244     | 1-110-338-51 | MYLAR                  | 180PF    | 5%  | 50V  |
| C245     | 1-107-210-00 | MICA                   | 22PF     | 5%  | 500V |
| C246     | 1-130-475-00 | MYLAR                  | 0.0022uF | 5%  | 50V  |
| C261     | 1-124-925-11 | ELECT                  | 2.2uF    | 20% | 100V |
| C263     | 1-124-916-11 | ELECT                  | 22uF     | 20% | 63V  |
| C264     | 1-124-907-11 | ELECT                  | 10uF     | 20% | 50V  |
| C281     | 1-136-153-00 | FILM                   | 0.01uF   | 5%  | 50V  |
| C282     | 1-136-157-00 | FILM                   | 0.022uF  | 5%  | 50V  |
| C283     | 1-136-161-00 | FILM                   | 0.047uF  | 5%  | 50V  |
| C284     | 1-136-803-11 | FILM                   | 560PF    | 5%  | 630V |
| C285     | 1-107-169-00 | MICA                   | 100PF    | 5%  | 500V |
| C286     | 1-130-468-00 | MYLAR                  | 560PF    | 5%  | 50V  |
| C501     | 1-126-022-11 | ELECT                  | 47uF     | 20% | 25V  |
| C502     | 1-126-022-11 | ELECT                  | 47uF     | 20% | 25V  |
| C503     | 1-130-477-00 | MYLAR                  | 0.0033uF | 5%  | 50V  |
| C504     | 1-136-164-00 | FILM                   | 0.082uF  | 5%  | 50V  |
| C505     | 1-124-902-00 | ELECT                  | 0.47uF   | 20% | 50V  |
| C507     | 1-124-925-11 | ELECT                  | 2.2uF    | 20% | 100V |
| C508     | 1-124-903-11 | ELECT                  | 1uF      | 20% | 50V  |
| C510     | 1-161-494-00 | CERAMIC                | 0.022uF  |     | 25V  |
| C511     | 1-136-161-00 | FILM                   | 0.047uF  | 5%  | 50V  |
| C521     | 1-124-994-11 | ELECT                  | 100uF    | 20% | 10V  |
| C522     | 1-124-994-11 | ELECT                  | 100uF    | 20% | 10V  |
| C530     | 1-124-903-11 | ELECT                  | 1uF      | 20% | 50V  |
| C531     | 1-124-994-11 | ELECT                  | 100uF    | 20% | 10V  |
| C532     | 1-124-994-11 | ELECT                  | 100uF    | 20% | 10V  |
| C534     | 1-124-903-11 | ELECT                  | 1uF      | 20% | 50V  |
| C535     | 1-124-907-11 | ELECT                  | 10uF     | 20% | 50V  |
| C536     | 1-124-907-11 | ELECT                  | 10uF     | 20% | 50V  |
| C542     | 1-124-907-11 | ELECT                  | 10uF     | 20% | 50V  |
| C543     | 1-124-907-11 | ELECT                  | 10uF     | 20% | 50V  |
| C563     | 1-162-217-31 | CERAMIC                | 56PF     | 5%  | 50V  |
| C564     | 1-136-157-00 | FILM                   | 0.022uF  | 5%  | 50V  |
| C565     | 1-162-217-31 | CERAMIC                | 56PF     | 5%  | 50V  |
| C566     | 1-124-925-11 | ELECT                  | 2.2uF    | 20% | 100V |
| C583     | 1-124-907-11 | ELECT                  | 10uF     | 20% | 50V  |
| C584     | 1-124-477-11 | ELECT                  | 47uF     | 20% | 25V  |
| C585     | 1-124-477-11 | ELECT                  | 47uF     | 20% | 25V  |
| C586     | 1-136-253-11 | FILM<br>(K715S)        | 0.0018uF | 5%  | 100V |
| C586     | 1-136-593-11 | FILM<br>(K717ES/K815S) | 0.0033uF | 5%  | 100V |
| C587     | 1-136-253-11 | FILM<br>(K715S)        | 0.0018uF | 5%  | 100V |
| C587     | 1-136-593-11 | FILM<br>(K717ES/K815S) | 0.0033uF | 5%  | 100V |
| C588     | 1-130-955-00 | FILM<br>(K717ES/K815S) | 0.01uF   | 5%  | 100V |

| Ref. No. | Part No.     | Description            | Remark   |        |      |
|----------|--------------|------------------------|----------|--------|------|
| C588     | 1-136-233-11 | FILM<br>(K715S)        | 0.0047uF | 5%     | 100V |
| C589     | 1-136-177-00 | FILM                   | 1uF      | 5%     | 50V  |
| C590     | 1-124-907-11 | ELECT                  | 10uF     | 20%    | 50V  |
| C591     | 1-107-584-11 | CERAMIC                | 4PF      | 0.25PF | 500V |
| C592     | 1-136-558-11 | FILM<br>(K715S)        | 0.0039uF | 5%     | 630V |
| C592     | 1-136-559-11 | FILM<br>(K717ES/K815S) | 0.0047uF | 5%     | 630V |
| C593     | 1-124-907-11 | ELECT                  | 10uF     | 20%    | 50V  |
| C594     | 1-124-907-11 | ELECT                  | 10uF     | 20%    | 50V  |
| C701     | 1-161-377-00 | CERAMIC                | 0.0047uF | 20%    | 16V  |
| C702     | 1-161-377-00 | CERAMIC                | 0.0047uF | 20%    | 16V  |
| C703     | 1-124-902-00 | ELECT                  | 0.47uF   | 20%    | 50V  |
| C704     | 1-164-159-11 | CERAMIC                | 0.1uF    |        | 50V  |
| C705     | 1-164-159-11 | CERAMIC                | 0.1uF    |        | 50V  |
| C707     | 1-126-925-11 | ELECT                  | 470uF    | 20%    | 10V  |
| C708     | 1-124-477-11 | ELECT                  | 47uF     | 20%    | 25V  |
| C709     | 1-126-962-11 | ELECT                  | 3.3uF    | 20%    | 50V  |
| C710     | 1-124-925-11 | ELECT                  | 2.2uF    | 20%    | 100V |
| C711     | 1-164-159-11 | CERAMIC                | 0.1uF    |        | 50V  |
| C720     | 1-162-209-31 | CERAMIC                | 27PF     | 5%     | 50V  |
| C721     | 1-162-209-31 | CERAMIC                | 27PF     | 5%     | 50V  |
| C722     | 1-161-377-00 | CERAMIC                | 0.0047uF | 20%    | 16V  |
| C723-731 | 1-161-494-00 | CERAMIC                | 0.022uF  |        | 25V  |
| C803     | 1-124-556-11 | ELECT                  | 2200uF   | 20%    | 16V  |
| C804     | 1-124-556-11 | ELECT                  | 2200uF   | 20%    | 16V  |
| C806     | 1-124-477-11 | ELECT                  | 47uF     | 20%    | 25V  |
| C808     | 1-124-999-11 | ELECT                  | 2200uF   | 20%    | 10V  |
| C809     | 1-124-999-11 | ELECT                  | 2200uF   | 20%    | 10V  |
| C810     | 1-124-907-11 | ELECT                  | 10uF     | 20%    | 50V  |
| C811     | 1-126-936-11 | ELECT                  | 3300uF   | 20%    | 16V  |
| C813     | 1-124-907-11 | ELECT                  | 10uF     | 20%    | 50V  |
| C814     | 1-126-916-11 | ELECT                  | 1000uF   | 20%    | 6.3V |
| C815     | 1-126-946-11 | ELECT                  | 6800uF   | 20%    | 25V  |
| C816     | 1-124-907-11 | ELECT                  | 10uF     | 20%    | 50V  |
| C817     | 1-126-768-11 | ELECT                  | 2200uF   | 20%    | 16V  |
| C818     | 1-124-122-11 | ELECT                  | 100uF    | 20%    | 50V  |
| C819     | 1-126-947-11 | ELECT                  | 47uF     | 20%    | 35V  |
| C820     | 1-164-159-11 | CERAMIC                | 0.1uF    |        | 50V  |
| C821-826 | 1-161-494-00 | CERAMIC                | 0.022uF  |        | 25V  |

&lt; CONNECTOR &gt;

|       |              |                           |    |
|-------|--------------|---------------------------|----|
| CN101 | 1-695-087-11 | PIN, CONNECTOR (PC BOARD) | 7P |
| CN102 | 1-695-087-11 | PIN, CONNECTOR (PC BOARD) | 7P |
| CN201 | 1-695-087-11 | PIN, CONNECTOR (PC BOARD) | 7P |
| CN202 | 1-695-087-11 | PIN, CONNECTOR (PC BOARD) | 7P |

| Ref. No.  | Part No.     | Description  | Remark |
|-----------|--------------|--|--------|
| * CN701   | 1-580-230-31 | PIN, CONNECTOR (PC BOARD) 2P<br>(EXCEPT K717ES:E, AUS) |        |
| * CN801   | 1-568-845-11 | SOCKET, CONNECTOR 31P                                  |        |
| * CN802   | 1-568-830-11 | SOCKET, CONNECTOR 11P                                  |        |
| * CND512  | 1-564-339-00 | PIN, CONNECTOR 5P                                      |        |
| * CND518  | 1-564-337-00 | PIN, CONNECTOR 3P                                      |        |
| * CND801  | 1-564-338-00 | PIN, CONNECTOR 4P                                      |        |
| * CND802  | 1-564-337-61 | PIN, CONNECTOR 3P                                      |        |
| * CNE501  | 1-564-521-11 | PLUG, CONNECTOR 6P                                     |        |
| * CNE522  | 1-564-505-11 | PLUG, CONNECTOR 2P (K717ES/K815S)                      |        |
| * CNE701  | 1-564-507-11 | PLUG, CONNECTOR 4P                                     |        |
| * CNE702  | 1-564-505-11 | PLUG, CONNECTOR 2P                                     |        |
| * CNE801  | 1-564-513-11 | PLUG, CONNECTOR 10P                                    |        |
| * CNN515  | 1-560-062-00 | PIN, CONNECTOR 4P                                      |        |
| * CNN516  | 1-560-062-00 | PIN, CONNECTOR 4P                                      |        |
| * CNN517  | 1-560-060-00 | PIN, CONNECTOR 2P (K715S)                              |        |
| * CNN517  | 1-560-061-00 | PIN, CONNECTOR 3P (K717ES/K815S)                       |        |
| * CNP513  | 1-564-707-11 | PIN, CONNECTOR (SMALL TYPE) 5P                         |        |
| * CNP514  | 1-564-707-11 | PIN, CONNECTOR (SMALL TYPE) 5P                         |        |
| < DIODE > |              |  |        |
| D101      | 8-719-987-63 | DIODE 1N4148M  |        |
| D102      | 8-719-987-63 | DIODE 1N4148M  |        |
| D201      | 8-719-987-63 | DIODE 1N4148M  |        |
| D202      | 8-719-987-63 | DIODE 1N4148M  |        |
| D502      | 8-719-987-63 | DIODE 1N4148M  |        |
| D503      | 8-719-987-63 | DIODE 1N4148M  |        |
| D504      | 8-719-987-63 | DIODE 1N4148M  |        |
| D505      | 8-719-987-63 | DIODE 1N4148M  |        |
| D507      | 8-719-987-63 | DIODE 1N4148M  |        |
| D508      | 8-719-987-63 | DIODE 1N4148M  |        |
| D509      | 8-719-987-63 | DIODE 1N4148M  |        |
| D510      | 8-719-987-63 | DIODE 1N4148M  |        |
| D511      | 8-719-987-63 | DIODE 1N4148M  |        |
| D512      | 8-719-987-63 | DIODE 1N4148M  |        |
| D513      | 8-719-987-63 | DIODE 1N4148M  |        |
| D514      | 8-719-987-63 | DIODE 1N4148M  |        |
| D515      | 8-719-987-63 | DIODE 1N4148M  |        |
| D516      | 8-719-987-63 | DIODE 1N4148M  |        |
| D517      | 8-719-987-63 | DIODE 1N4148M  |        |
| D518      | 8-719-107-94 | DIODE 1SS202-1   |        |
| D519      | 8-719-107-94 | DIODE 1SS202-1   |        |
| D520      | 8-719-107-94 | DIODE 1SS202-1   |        |
| D521      | 8-719-107-94 | DIODE 1SS202-1   |        |
| D531      | 8-719-987-63 | DIODE 1N4148M  |        |
| D703      | 8-719-987-63 | DIODE 1N4148M  |        |
| D704      | 8-719-987-63 | DIODE 1N4148M  |        |
| D705      | 8-719-987-63 | DIODE 1N4148M  |        |
| D707      | 8-719-987-63 | DIODE 1N4148M  |        |

| Ref. No. | Part No.     | Description                              | Remark |
|----------|--------------|--|--------|
| D708     | 8-719-933-33 | DIODE HZS6A1L                            |        |
| D709     | 8-719-933-33 | DIODE HZS6A1L                            |        |
| D801     | 8-719-200-77 | DIODE 10E2N                              |        |
| D802     | 8-719-200-77 | DIODE 10E2N                              |        |
| D803     | 8-719-200-77 | DIODE 10E2N                              |        |
| D804     | 8-719-200-77 | DIODE 10E2N                              |        |
| D805     | 8-719-933-33 | DIODE HZS6A1L                            |        |
| D806     | 8-719-933-33 | DIODE HZS6A1L                            |        |
| D807     | 8-719-987-63 | DIODE 1N4148M                            |        |
| D812     | 8-719-987-63 | DIODE 1N4148M                            |        |
| D813     | 8-719-200-31 | DIODE 21DQ05                             |        |
| D814     | 8-719-000-78 | DIODE UZL-7L2                            |        |
| D815     | 8-719-987-63 | DIODE 1N4148M                            |        |
| D816     | 8-719-987-63 | DIODE 1N4148M                            |        |
| D817     | 8-719-001-70 | DIODE UZL-12M1                           |        |
| D818     | 8-719-200-77 | DIODE 10E2N                              |        |
| D819     | 8-719-200-77 | DIODE 10E2N                              |        |
| D820     | 8-719-000-93 | DIODE UZL-7H1                            |        |
| D822     | 8-719-987-63 | DIODE 1N4148M                            |        |
| D823     | 8-719-312-09 | DIODE RBA-402                            |        |
| D824     | 8-719-987-63 | DIODE 1N4148M                            |        |
| < IC >   |              |  |        |
| IC501    | 8-752-066-35 | IC CXA1563S                              |        |
| IC502    | 8-759-000-49 | IC MC14066BCP                            |        |
| IC503    | 8-752-060-64 | IC CXA1198AP                             |        |
| IC504    | 8-759-106-56 | IC uPC1297CA                             |        |
| IC505    | 8-759-111-44 | IC uPC4570C-1                            |        |
| IC506    | 8-752-066-35 | IC CXA1563S                              |        |
| IC507    | 8-759-634-51 | IC M5218AP                               |        |
| IC508    | 8-759-145-58 | IC uPC4558C                              |        |
| IC509    | 8-759-145-58 | IC uPC4558C                              |        |
| IC510    | 8-759-634-51 | IC M5218AP                               |        |
| IC511    | 8-759-634-51 | IC M5218AP                               |        |
| IC701    | 8-759-254-84 | IC uPD78042GF-071-3B9                    |        |
| IC702    | 8-759-165-85 | IC PST600H-T                             |        |
| IC703    | 8-759-973-95 | IC BA6219B                               |        |
| IC704    | 8-759-822-09 | IC LB1641                                |        |
| IC801    | 8-759-145-58 | IC uPC4558C                              |        |
| < JACK > |              |  |        |
| J501     | 1-565-258-11 | JACK, PIN 4P (LINE IN/OUT) (K715S/K815S) |        |
| J501     | 1-573-070-11 | JACK, PIN 4P (LINE IN/OUT) (K717ES)      |        |
| J502     | 1-750-735-11 | JACK (LARGE TYPE) (HEADPHONES)           |        |
| < COIL > |              |  |        |
| L121     | 1-410-778-11 | INDUCTOR 18mH                            |        |
| L141     | 1-410-780-11 | INDUCTOR 27mH                            |        |

# MAIN

| Ref. No.       | Part No.     | Description             | Remark |
|----------------|--------------|-------------------------|--------|
| L221           | 1-410-778-11 | INDUCTOR 18mH           |        |
| L241           | 1-410-780-11 | INDUCTOR 27mH           |        |
| < FILTER >     |              |                         |        |
| LPF101         | 1-236-147-11 | FILTER, LOW PASS        |        |
| LPF201         | 1-236-147-11 | FILTER, LOW PASS        |        |
| < TRANSISTOR > |              |                         |        |
| Q101           | 8-729-922-37 | TRANSISTOR 2SD2144S-UVW |        |
| Q102           | 8-729-922-37 | TRANSISTOR 2SD2144S-UVW |        |
| Q103           | 8-729-900-74 | TRANSISTOR DTC143TS     |        |
| Q104           | 8-729-900-80 | TRANSISTOR DTC114ES     |        |
| Q105           | 8-729-900-80 | TRANSISTOR DTC114ES     |        |
| Q201           | 8-729-922-37 | TRANSISTOR 2SD2144S-UVW |        |
| Q202           | 8-729-922-37 | TRANSISTOR 2SD2144S-UVW |        |
| Q203           | 8-729-900-74 | TRANSISTOR DTC143TS     |        |
| Q204           | 8-729-900-80 | TRANSISTOR DTC114ES     |        |
| Q205           | 8-729-900-80 | TRANSISTOR DTC114ES     |        |
| Q501           | 8-729-620-05 | TRANSISTOR 2SC2603-EF   |        |
| Q502           | 8-729-620-05 | TRANSISTOR 2SC2603-EF   |        |
| Q503           | 8-729-922-37 | TRANSISTOR 2SD2144S-UVW |        |
| Q504           | 8-729-900-80 | TRANSISTOR DTC114ES     |        |
| Q505           | 8-729-119-76 | TRANSISTOR 2SA1175-HFE  |        |
| Q506           | 8-729-142-25 | TRANSISTOR 2SD1020-HFE  |        |
| Q507           | 8-729-900-80 | TRANSISTOR DTC114ES     |        |
| Q508           | 8-729-119-76 | TRANSISTOR 2SA1175-HFE  |        |
| Q509           | 8-729-900-80 | TRANSISTOR DTC114ES     |        |
| Q510           | 8-729-900-80 | TRANSISTOR DTC114ES     |        |
| Q511           | 8-729-194-57 | TRANSISTOR 2SC945-P     |        |
| Q512           | 8-729-194-57 | TRANSISTOR 2SC945-P     |        |
| Q513           | 8-729-900-80 | TRANSISTOR DTC114ES     |        |
| Q514           | 8-729-900-80 | TRANSISTOR DTC114ES     |        |
| Q515           | 8-729-900-80 | TRANSISTOR DTC114ES     |        |
| Q516           | 8-729-900-89 | TRANSISTOR DTC144ES     |        |
| Q517           | 8-729-900-80 | TRANSISTOR DTC114ES     |        |
| Q520           | 8-729-900-74 | TRANSISTOR DTC143TS     |        |
| Q701           | 8-729-900-80 | TRANSISTOR DTC114ES     |        |
| Q702           | 8-729-900-80 | TRANSISTOR DTC114ES     |        |
| Q703           | 8-729-620-05 | TRANSISTOR 2SC2603-EF   |        |
| Q705           | 8-729-119-76 | TRANSISTOR 2SA1175-HFE  |        |
| Q706           | 8-729-119-76 | TRANSISTOR 2SA1175-HFE  |        |
| Q707           | 8-729-900-61 | TRANSISTOR DTA114ES     |        |
| Q708           | 8-729-900-61 | TRANSISTOR DTA114ES     |        |
| Q710           | 8-729-900-80 | TRANSISTOR DTC114ES     |        |
| Q712           | 8-729-900-80 | TRANSISTOR DTC114ES     |        |
| Q713           | 8-729-900-89 | TRANSISTOR DTC144ES     |        |
| Q714           | 8-729-900-61 | TRANSISTOR DTA114ES     |        |
| Q715           | 8-729-900-89 | TRANSISTOR DTC144ES     |        |

| Ref. No.     | Part No.     | Description                     | Remark |
|--------------|--------------|---------------------------------|--------|
| Q716         | 8-729-900-89 | TRANSISTOR DTC144ES             |        |
| Q717         | 8-729-900-61 | TRANSISTOR DTA114ES             |        |
| Q718         | 8-729-900-61 | TRANSISTOR DTA114ES             |        |
| Q720         | 8-729-900-89 | TRANSISTOR DTC144ES             |        |
| Q801         | 8-729-900-61 | TRANSISTOR DTA114ES             |        |
| Q802         | 8-729-900-80 | TRANSISTOR DTC114ES             |        |
| Q803         | 8-729-141-83 | TRANSISTOR 2SB1094-LK           |        |
| Q804         | 8-729-209-15 | TRANSISTOR 2SD2012              |        |
| Q805         | 8-729-209-15 | TRANSISTOR 2SD2012              |        |
| Q806         | 8-729-620-05 | TRANSISTOR 2SC2603-EF           |        |
| Q807         | 8-729-900-80 | TRANSISTOR DTC114ES             |        |
| Q808         | 8-729-141-83 | TRANSISTOR 2SB1094-LK           |        |
| Q809         | 8-729-620-05 | TRANSISTOR 2SC2603-EF           |        |
| Q810         | 8-729-119-76 | TRANSISTOR 2SA1175-HFE          |        |
| Q811         | 8-729-140-04 | TRANSISTOR 2SB1116A-L           |        |
| < RESISTOR > |              |                                 |        |
| R101         | 1-259-460-11 | CARBON 22K 5% 1/6W              |        |
| R104         | 1-259-440-11 | CARBON 3.3K 5% 1/6W             |        |
| R105         | 1-259-450-11 | CARBON 8.2K 5% 1/6W             |        |
| R109         | 1-259-436-11 | CARBON 2.2K 5% 1/6W             |        |
| R110         | 1-259-436-11 | CARBON 2.2K 5% 1/6W             |        |
| R111         | 1-259-467-11 | CARBON 43K 5% 1/6W              |        |
| R112         | 1-259-428-11 | CARBON 1K 5% 1/6W               |        |
| R113         | 1-259-476-11 | CARBON 100K 5% 1/6W             |        |
| R114         | 1-259-484-11 | CARBON 220K 5% 1/6W             |        |
| R115         | 1-259-436-11 | CARBON 2.2K 5% 1/6W             |        |
| R116         | 1-259-476-11 | CARBON 100K 5% 1/6W             |        |
| R121         | 1-259-466-11 | CARBON 39K 5% 1/6W              |        |
| R121         | 1-259-476-11 | CARBON (K717ES) 100K 5% 1/6W    |        |
| R122         | 1-259-402-11 | CARBON (K715S/K815S) 82 5% 1/6W |        |
| R123         | 1-259-479-11 | CARBON 130K 5% 1/6W             |        |
| R124         | 1-259-446-11 | CARBON 5.6K 5% 1/6W             |        |
| R125         | 1-259-434-11 | CARBON 1.8K 5% 1/6W             |        |
| R126         | 1-259-435-11 | CARBON 2K 5% 1/6W               |        |
| R142         | 1-259-442-11 | CARBON 3.9K 5% 1/6W             |        |
| R143         | 1-259-440-11 | CARBON 3.3K 5% 1/6W             |        |
| R144         | 1-259-452-11 | CARBON 10K 5% 1/6W              |        |
| R145         | 1-259-436-11 | CARBON 2.2K 5% 1/6W             |        |
| R146         | 1-259-444-11 | CARBON 4.7K 5% 1/6W             |        |
| R147         | 1-259-444-11 | CARBON 4.7K 5% 1/6W             |        |
| R151         | 1-259-460-11 | CARBON 22K 5% 1/6W              |        |
| R152         | 1-259-436-11 | CARBON 2.2K 5% 1/6W             |        |
| R153         | 1-259-459-11 | CARBON 20K 5% 1/6W              |        |
| R154         | 1-259-412-11 | CARBON 220 5% 1/6W              |        |
| R161         | 1-259-462-11 | CARBON 27K 5% 1/6W              |        |
| R162         | 1-259-471-11 | CARBON 62K 5% 1/6W              |        |

| Ref. No. | Part No.     | Description             | Remark |    |        |
|----------|--------------|-------------------------|--------|----|--------|
| R163     | 1-259-414-11 | CARBON                  | 270    | 5% | 1/6W   |
| R164     | 1-259-476-11 | CARBON                  | 100K   | 5% | 1/6W   |
| R181     | 1-259-446-11 | CARBON<br>(K715S/K815S) | 5.6K   | 5% | 1/6W   |
| R181     | 1-259-450-11 | CARBON<br>(K717ES)      | 8.2K   | 5% | 1/6W   |
| R182     | 1-259-464-11 | CARBON                  | 33K    | 5% | 1/6W   |
| △R183    | 1-219-153-11 | FUSIBLE                 | 10     | 5% | 1/4W F |
| R184     | 1-259-480-11 | CARBON                  | 150K   | 5% | 1/6W   |
| R191     | 1-259-461-11 | CARBON                  | 24K    | 5% | 1/6W   |
| R192     | 1-259-452-11 | CARBON                  | 10K    | 5% | 1/6W   |
| R193     | 1-259-476-11 | CARBON                  | 100K   | 5% | 1/6W   |
| R201     | 1-259-460-11 | CARBON                  | 22K    | 5% | 1/6W   |
| R204     | 1-259-440-11 | CARBON                  | 3.3K   | 5% | 1/6W   |
| R205     | 1-259-450-11 | CARBON                  | 8.2K   | 5% | 1/6W   |
| R209     | 1-259-436-11 | CARBON                  | 2.2K   | 5% | 1/6W   |
| R210     | 1-259-436-11 | CARBON                  | 2.2K   | 5% | 1/6W   |
| R211     | 1-259-467-11 | CARBON                  | 43K    | 5% | 1/6W   |
| R212     | 1-259-428-11 | CARBON                  | 1K     | 5% | 1/6W   |
| R213     | 1-259-476-11 | CARBON                  | 100K   | 5% | 1/6W   |
| R214     | 1-259-484-11 | CARBON                  | 220K   | 5% | 1/6W   |
| R215     | 1-259-436-11 | CARBON                  | 2.2K   | 5% | 1/6W   |
| R216     | 1-259-476-11 | CARBON                  | 100K   | 5% | 1/6W   |
| R221     | 1-259-466-11 | CARBON<br>(K717ES)      | 39K    | 5% | 1/6W   |
| R221     | 1-259-476-11 | CARBON<br>(K715S/K815S) | 100K   | 5% | 1/6W   |
| R222     | 1-259-402-11 | CARBON                  | 82     | 5% | 1/6W   |
| R223     | 1-259-479-11 | CARBON                  | 130K   | 5% | 1/6W   |
| R224     | 1-259-446-11 | CARBON                  | 5.6K   | 5% | 1/6W   |
| R225     | 1-259-434-11 | CARBON                  | 1.8K   | 5% | 1/6W   |
| R226     | 1-259-435-11 | CARBON                  | 2K     | 5% | 1/6W   |
| R242     | 1-259-442-11 | CARBON                  | 3.9K   | 5% | 1/6W   |
| R243     | 1-259-440-11 | CARBON                  | 3.3K   | 5% | 1/6W   |
| R244     | 1-259-452-11 | CARBON                  | 10K    | 5% | 1/6W   |
| R245     | 1-259-436-11 | CARBON                  | 2.2K   | 5% | 1/6W   |
| R246     | 1-259-444-11 | CARBON                  | 4.7K   | 5% | 1/6W   |
| R247     | 1-259-444-11 | CARBON                  | 4.7K   | 5% | 1/6W   |
| R251     | 1-259-460-11 | CARBON                  | 22K    | 5% | 1/6W   |
| R252     | 1-259-436-11 | CARBON                  | 2.2K   | 5% | 1/6W   |
| R253     | 1-259-459-11 | CARBON                  | 20K    | 5% | 1/6W   |
| R254     | 1-259-412-11 | CARBON                  | 220    | 5% | 1/6W   |
| R261     | 1-259-462-11 | CARBON                  | 27K    | 5% | 1/6W   |
| R262     | 1-259-471-11 | CARBON                  | 62K    | 5% | 1/6W   |
| R263     | 1-259-414-11 | CARBON                  | 270    | 5% | 1/6W   |
| R264     | 1-259-476-11 | CARBON                  | 100K   | 5% | 1/6W   |
| R281     | 1-259-446-11 | CARBON<br>(K715S/K815S) | 5.6K   | 5% | 1/6W   |
| R281     | 1-259-450-11 | CARBON<br>(K717ES)      | 8.2K   | 5% | 1/6W   |

| Ref. No. | Part No.     | Description              | Remark |    |              |
|----------|--------------|--------------------------|--------|----|--------------|
| R282     | 1-259-464-11 | CARBON                   | 33K    | 5% | 1/6W         |
| △R283    | 1-219-153-11 | FUSIBLE                  | 10     | 5% | 1/4W F       |
| R284     | 1-259-480-11 | CARBON                   | 150K   | 5% | 1/6W         |
| R291     | 1-259-461-11 | CARBON                   | 24K    | 5% | 1/6W         |
| R292     | 1-259-452-11 | CARBON                   | 10K    | 5% | 1/6W         |
| R293     | 1-259-476-11 | CARBON                   | 100K   | 5% | 1/6W         |
| R502     | 1-215-452-00 | METAL                    | 20K    | 1% | 1/6W         |
| R504     | 1-249-413-11 | CARBON                   | 470    | 5% | 1/4W (K715S) |
| R505     | 1-249-427-11 | CARBON                   | 6.8K   | 5% | 1/4W         |
| R506     | 1-249-381-11 | CARBON<br>(K717ES/K815S) | 1      | 5% | 1/4W         |
| R507     | 1-249-425-11 | CARBON                   | 4.7K   | 5% | 1/4W         |
| R508     | 1-249-433-11 | CARBON                   | 22K    | 5% | 1/4W         |
| R509     | 1-249-436-11 | CARBON                   | 39K    | 5% | 1/4W         |
| R510     | 1-249-421-11 | CARBON                   | 2.2K   | 5% | 1/4W         |
| R511     | 1-249-421-11 | CARBON                   | 2.2K   | 5% | 1/4W         |
| R512     | 1-249-441-11 | CARBON                   | 100K   | 5% | 1/4W         |
| R513     | 1-249-441-11 | CARBON                   | 100K   | 5% | 1/4W         |
| R514     | 1-247-836-11 | CARBON                   | 1.6K   | 5% | 1/4W         |
| R516     | 1-249-437-11 | CARBON                   | 47K    | 5% | 1/4W         |
| R517     | 1-249-421-11 | CARBON                   | 2.2K   | 5% | 1/4W         |
| R518     | 1-249-427-11 | CARBON                   | 6.8K   | 5% | 1/4W         |
| R519     | 1-249-437-11 | CARBON                   | 47K    | 5% | 1/4W         |
| R520     | 1-249-434-11 | CARBON                   | 27K    | 5% | 1/4W         |
| R521     | 1-247-704-11 | CARBON                   | 220    | 5% | 1/4W         |
| R522     | 1-247-704-11 | CARBON                   | 220    | 5% | 1/4W         |
| R524     | 1-249-429-11 | CARBON                   | 10K    | 5% | 1/4W         |
| R531     | 1-249-441-11 | CARBON                   | 100K   | 5% | 1/4W         |
| R532     | 1-215-452-00 | METAL                    | 20K    | 1% | 1/6W         |
| R533     | 1-249-437-11 | CARBON                   | 47K    | 5% | 1/4W         |
| R534     | 1-249-441-11 | CARBON                   | 100K   | 5% | 1/4W         |
| R535     | 1-215-454-00 | METAL                    | 24K    | 1% | 1/6W         |
| R540     | 1-249-429-11 | CARBON                   | 10K    | 5% | 1/4W         |
| R541     | 1-215-445-00 | METAL                    | 10K    | 1% | 1/6W         |
| R542     | 1-215-453-00 | METAL                    | 22K    | 1% | 1/6W         |
| R563     | 1-249-441-11 | CARBON                   | 100K   | 5% | 1/4W         |
| R564     | 1-249-429-11 | CARBON                   | 10K    | 5% | 1/4W         |
| R565     | 1-249-441-11 | CARBON                   | 100K   | 5% | 1/4W         |
| R566     | 1-249-428-11 | CARBON                   | 8.2K   | 5% | 1/4W         |
| R567     | 1-249-441-11 | CARBON                   | 100K   | 5% | 1/4W         |
| R568     | 1-249-423-11 | CARBON                   | 3.3K   | 5% | 1/4W         |
| R569     | 1-249-441-11 | CARBON                   | 100K   | 5% | 1/4W         |
| R570     | 1-249-429-11 | CARBON                   | 10K    | 5% | 1/4W         |
| R571     | 1-249-429-11 | CARBON                   | 10K    | 5% | 1/4W         |
| R572     | 1-249-417-11 | CARBON                   | 1K     | 5% | 1/4W         |
| R581     | 1-249-429-11 | CARBON                   | 10K    | 5% | 1/4W         |
| R582     | 1-249-429-11 | CARBON                   | 10K    | 5% | 1/4W         |
| R583     | 1-247-822-11 | CARBON<br>(K715S/K815S)  | 430    | 5% | 1/4W         |

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

# MAIN

| Ref. No. | Part No.     | Description              | Remark |    |              |
|----------|--------------|--------------------------|--------|----|--------------|
| R583     | 1-249-414-11 | CARBON<br>(K717ES)       | 560    | 5% | 1/4W         |
| R584     | 1-249-417-11 | CARBON                   | 1K     | 5% | 1/4W         |
| R585     | 1-247-862-11 | CARBON<br>(K715S/K815S)  | 20K    | 5% | 1/4W         |
| R585     | 1-249-433-11 | CARBON<br>(K717ES)       | 22K    | 5% | 1/4W         |
| R586     | 1-249-417-11 | CARBON                   | 1K     | 5% | 1/4W         |
| R587     | 1-249-436-11 | CARBON<br>(K717ES/K815S) | 39K    | 5% | 1/4W         |
| R587     | 1-249-440-11 | CARBON                   | 82K    | 5% | 1/4W (K715S) |
| R588     | 1-249-436-11 | CARBON<br>(K717ES/K815S) | 39K    | 5% | 1/4W         |
| R588     | 1-249-440-11 | CARBON                   | 82K    | 5% | 1/4W (K715S) |
| R589     | 1-249-390-11 | CARBON                   | 5.6    | 5% | 1/6W (K715S) |
| R589     | 1-249-391-11 | CARBON<br>(K717ES/K815S) | 6.8    | 5% | 1/4W         |
| R590     | 1-249-390-11 | CARBON                   | 5.6    | 5% | 1/6W (K715S) |
| R590     | 1-249-391-11 | CARBON<br>(K717ES/K815S) | 6.8    | 5% | 1/4W         |
| R591     | 1-249-421-11 | CARBON                   | 2.2K   | 5% | 1/4W         |
| R593     | 1-249-429-11 | CARBON                   | 10K    | 5% | 1/4W         |
| R594     | 1-249-429-11 | CARBON                   | 10K    | 5% | 1/4W         |
| R601     | 1-247-878-00 | CARBON<br>(K717ES)       | 91K    | 5% | 1/4W         |
| R601     | 1-249-439-11 | CARBON<br>(K715S/K815S)  | 68K    | 5% | 1/4W         |
| R602     | 1-249-435-11 | CARBON                   | 33K    | 5% | 1/4W         |
| R603     | 1-247-878-00 | CARBON<br>(K717ES)       | 91K    | 5% | 1/4W         |
| R603     | 1-249-437-11 | CARBON<br>(K715S/K815S)  | 47K    | 5% | 1/4W         |
| R604     | 1-247-874-11 | CARBON<br>(K715S/K815S)  | 62K    | 5% | 1/4W         |
| R604     | 1-247-876-11 | CARBON<br>(K717ES)       | 75K    | 5% | 1/4W         |
| R605     | 1-249-439-11 | CARBON<br>(K717ES)       | 68K    | 5% | 1/4W         |
| R605     | 1-249-441-11 | CARBON<br>(K715S/K815S)  | 100K   | 5% | 1/4W         |
| R606     | 1-249-433-11 | CARBON                   | 22K    | 5% | 1/4W         |
| R607     | 1-247-874-11 | CARBON                   | 62K    | 5% | 1/4W         |
| R608     | 1-247-872-11 | CARBON<br>(K717ES)       | 51K    | 5% | 1/4W         |
| R608     | 1-249-437-11 | CARBON<br>(K715S/K815S)  | 47K    | 5% | 1/4W         |
| R609     | 1-247-880-11 | CARBON<br>(K715S/K815S)  | 110K   | 5% | 1/4W         |
| R609     | 1-247-882-11 | CARBON<br>(K717ES)       | 130K   | 5% | 1/4W         |
| R610     | 1-247-876-11 | CARBON<br>(K717ES)       | 75K    | 5% | 1/4W         |

| Ref. No. | Part No.     | Description              | Remark |    |              |
|----------|--------------|--------------------------|--------|----|--------------|
| R610     | 1-247-878-00 | CARBON<br>(K715S/K815S)  | 91K    | 5% | 1/4W         |
| R611     | 1-249-438-11 | CARBON<br>(K717ES)       | 56K    | 5% | 1/4W         |
| R611     | 1-249-439-11 | CARBON<br>(K715S/K815S)  | 68K    | 5% | 1/4W         |
| R612     | 1-247-887-00 | CARBON                   | 220K   | 5% | 1/4W         |
| R613     | 1-249-440-11 | CARBON                   | 82K    | 5% | 1/4W         |
| R614     | 1-249-438-11 | CARBON                   | 56K    | 5% | 1/4W         |
| R616     | 1-247-874-11 | CARBON<br>(K715S/K815S)  | 62K    | 5% | 1/4W         |
| R616     | 1-249-437-11 | CARBON<br>(K717ES)       | 47K    | 5% | 1/4W         |
| R617     | 1-247-874-11 | CARBON<br>(K715S/K815S)  | 62K    | 5% | 1/4W         |
| R617     | 1-249-440-11 | CARBON<br>(K717ES)       | 82K    | 5% | 1/4W         |
| R618     | 1-247-883-00 | CARBON<br>(K717ES)       | 150K   | 5% | 1/4W         |
| R618     | 1-247-886-11 | CARBON<br>(K715S/K815S)  | 200K   | 5% | 1/4W         |
| R619     | 1-249-435-11 | CARBON                   | 33K    | 5% | 1/4W         |
| R701     | 1-249-417-11 | CARBON                   | 1K     | 5% | 1/4W         |
| R702     | 1-249-441-11 | CARBON                   | 100K   | 5% | 1/4W         |
| R703     | 1-249-436-11 | CARBON                   | 39K    | 5% | 1/4W         |
| R704     | 1-249-429-11 | CARBON                   | 10K    | 5% | 1/4W         |
| R705     | 1-249-436-11 | CARBON                   | 39K    | 5% | 1/4W         |
| R706     | 1-249-429-11 | CARBON                   | 10K    | 5% | 1/4W         |
| R707     | 1-249-431-11 | CARBON                   | 15K    | 5% | 1/4W         |
| R708     | 1-247-868-11 | CARBON                   | 36K    | 5% | 1/4W         |
| R709     | 1-249-435-11 | CARBON                   | 33K    | 5% | 1/4W         |
| R710     | 1-249-435-11 | CARBON                   | 33K    | 5% | 1/4W         |
| R711     | 1-247-878-00 | CARBON<br>(K717ES/K815S) | 91K    | 5% | 1/4W         |
| R711     | 1-249-429-11 | CARBON                   | 10K    | 5% | 1/4W (K715S) |
| R712-717 | 1-249-429-11 | CARBON                   | 10K    | 5% | 1/4W         |
| R719     | 1-249-429-11 | CARBON                   | 10K    | 5% | 1/4W         |
| △R720    | 1-212-954-11 | FUSIBLE                  | 6.8    | 5% | 1/2W F       |
| R721     | 1-249-429-11 | CARBON                   | 10K    | 5% | 1/4W         |
| R722     | 1-249-431-11 | CARBON                   | 15K    | 5% | 1/4W         |
| R723     | 1-247-834-11 | CARBON                   | 1.3K   | 5% | 1/4W         |
| R724     | 1-249-424-11 | CARBON                   | 3.9K   | 5% | 1/4W         |
| R725     | 1-247-834-11 | CARBON                   | 1.3K   | 5% | 1/4W         |
| R726     | 1-249-427-11 | CARBON                   | 6.8K   | 5% | 1/4W         |
| R727     | 1-249-430-11 | CARBON                   | 12K    | 5% | 1/4W         |
| △R728    | 1-212-952-00 | FUSIBLE                  | 5.6    | 5% | 1/2W F       |
| R729     | 1-249-409-11 | CARBON                   | 220    | 5% | 1/4W         |
| R730     | 1-249-419-11 | CARBON                   | 1.5K   | 5% | 1/4W         |
| R731     | 1-249-429-11 | CARBON                   | 10K    | 5% | 1/4W         |
| R732     | 1-247-883-00 | CARBON                   | 150K   | 5% | 1/4W         |

The components identified by mark △ or dotted line with mark. △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

| Ref. No.              | Part No.       | Description      | Remark  |             |        |
|-----------------------|----------------|------------------|---------|-------------|--------|
| R733                  | 1-249-437-11   | CARBON           | 47K     | 5%          | 1/4W   |
| R734                  | 1-249-437-11   | CARBON           | 47K     | 5%          | 1/4W   |
| R735                  | 1-249-421-11   | CARBON           | 2.2K    | 5%          | 1/4W   |
| △R736                 | 1-212-942-00   | FUSIBLE          | 2.2     | 5%          | 1/2W F |
| R737-739              |                |                  |         |             |        |
|                       | 1-249-429-11   | CARBON           | 10K     | 5%          | 1/4W   |
| R740                  | 1-249-436-11   | CARBON           | 39K     | 5%          | 1/4W   |
| R741                  | 1-247-860-11   | CARBON           | 16K     | 5%          | 1/4W   |
|                       | (K717ES/K815S) |                  |         |             |        |
| R741                  | 1-249-432-11   | CARBON           | 18K     | 5%          | 1/4W   |
|                       | (K715S)        |                  |         |             |        |
| R742-744              |                |                  |         |             |        |
|                       | 1-249-441-11   | CARBON           | 100K    | 5%          | 1/4W   |
| R745-747              |                |                  |         |             |        |
|                       | 1-249-429-11   | CARBON           | 10K     | 5%          | 1/4W   |
| R751                  | 1-249-429-11   | CARBON           | 10K     | 5%          | 1/4W   |
| R799                  | 1-247-807-31   | CARBON           | 100     | 5%          | 1/4W   |
| R802                  | 1-249-425-11   | CARBON           | 4.7K    | 5%          | 1/4W   |
| R803                  | 1-249-420-11   | CARBON           | 1.8K    | 5%          | 1/4W   |
| R804                  | 1-249-412-11   | CARBON           | 390     | 5%          | 1/4W   |
|                       |                |                  |         |             |        |
| R805                  | 1-249-427-11   | CARBON           | 6.8K    | 5%          | 1/4W   |
| R806                  | 1-249-419-11   | CARBON           | 1.5K    | 5%          | 1/4W   |
| R807                  | 1-249-429-11   | CARBON           | 10K     | 5%          | 1/4W   |
| R808                  | 1-249-419-11   | CARBON           | 1.5K    | 5%          | 1/4W   |
| R809                  | 1-249-425-11   | CARBON           | 4.7K    | 5%          | 1/4W   |
|                       |                |                  |         |             |        |
| R810                  | 1-249-409-11   | CARBON           | 220     | 5%          | 1/4W   |
| R811                  | 1-249-417-11   | CARBON           | 1K      | 5%          | 1/4W   |
| R812                  | 1-249-427-11   | CARBON           | 6.8K    | 5%          | 1/4W   |
| R813                  | 1-249-427-11   | CARBON           | 6.8K    | 5%          | 1/4W   |
| R814                  | 1-249-417-11   | CARBON           | 1K      | 5%          | 1/4W   |
| R815-817              |                |                  |         |             |        |
|                       | 1-249-425-11   | CARBON           | 4.7K    | 5%          | 1/4W   |
| R818                  | 1-249-433-11   | CARBON           | 22K     | 5%          | 1/4W   |
| R819                  | 1-249-436-11   | CARBON           | 39K     | 5%          | 1/4W   |
| R820                  | 1-247-854-11   | CARBON           | 9.1K    | 5%          | 1/4W   |
| R821                  | 1-249-437-11   | CARBON           | 47K     | 5%          | 1/4W   |
|                       |                |                  |         |             |        |
| △R825                 | 1-219-135-11   | FUSIBLE          | 0.15    | 10%         | 1/4W F |
| △R826                 | 1-219-137-11   | FUSIBLE          | 0.33    | 10%         | 1/4W F |
| < VARIABLE RESISTOR > |                |                  |         |             |        |
| RV121                 | 1-241-763-11   | RES. ADJ. CARBON | 4.7K    |             |        |
| RV141                 | 1-241-765-11   | RES. ADJ. CARBON | 22K     |             |        |
| RV142                 | 1-238-019-11   | RES. ADJ. CARBON | 47K     |             |        |
| RV181                 | 1-241-765-11   | RES. ADJ. CARBON | 22K     |             |        |
| RV221                 | 1-241-763-11   | RES. ADJ. CARBON | 4.7K    |             |        |
|                       |                |                  |         |             |        |
| RV241                 | 1-241-765-11   | RES. ADJ. CARBON | 22K     |             |        |
| RV242                 | 1-238-019-11   | RES. ADJ. CARBON | 47K     |             |        |
| RV281                 | 1-241-765-11   | RES. ADJ. CARBON | 22K     |             |        |
| RV501                 | 1-223-328-11   | RES. VAR. CARBON | 50K/50K | (REC LEVEL) |        |
| RV502                 | 1-223-331-11   | RES. VAR. CARBON | 50K/50K | (BALANCE)   |        |

| Ref. No.        | Part No.     | Description                                  | Remark      |
|-----------------|--------------|--|-------------|
| RV504           | 1-241-763-11 | RES. ADJ. CARBON 4.7K (K717ES/K815S)         |             |
| RV505           | 1-223-330-11 | RES. VAR. CARBON 20K/20K (PHONE LEVEL)       |             |
| RV508           | 1-223-387-21 | RES. ADJ. CARBON 330K (K715S/K815S)          |             |
| RV508           | 1-241-768-11 | RES. ADJ. CARBON 220K (K717ES)               |             |
| < TRANSFORMER > |              |  |             |
| T181            | 1-433-344-11 | TRANSFORMER, BIAS OSCILLATION                |             |
| T281            | 1-433-344-11 | TRANSFORMER, BIAS OSCILLATION                |             |
| T501            | 1-423-621-11 | TRANSFORMER, BIAS OSCILLATION (K715S)        |             |
| T501            | 1-433-380-11 | TRANSFORMER, BIAS OSCILLATION (K717ES/K815S) |             |
| < TEST PIN >    |              |  |             |
| * TP581         | 1-564-506-11 | PLUG, CONNECTOR 3P                           |             |
| < VIBRATOR >    |              |  |             |
| X701            | 1-579-066-31 | VIBRATOR, CRYSTAL (4.19MHz)                  |             |
| *****           |              |  |             |
| *               | 1-632-740-11 | MD BOARD                                     |             |
| *****           |              |  |             |
|                 | 3-356-631-01 | HOLDER (SENSOR)                              |             |
| < CONNECTOR >   |              |  |             |
| CN1001          | 1-506-615-11 | PIN, CONNECTOR 9P                            |             |
| * CN1002        | 1-564-502-11 | PIN, CONNECTOR 10P                           |             |
| < IC >          |              |  |             |
| IC1001          | 8-749-920-97 | PHOTO SENSOR                                 | GP2S22B     |
| IC1002          | 8-749-920-97 | PHOTO SENSOR                                 | GP2S22B     |
| < RESISTOR >    |              |  |             |
| R1001           | 1-249-408-11 | CARBON                                       | 180 5% 1/4W |
| R1002           | 1-249-408-11 | CARBON                                       | 180 5% 1/4W |
| < SWITCH >      |              |  |             |
| S1002           | 1-570-953-11 | SWITCH, PUSH (1 KEY)                         | (DOOR)      |
| S1003           | 1-571-958-11 | SWITCH, PUSH (1 KEY)                         | (CLOSE)     |
| S1004           | 1-572-126-11 | SWITCH, PUSH (1 KEY)                         | (OPEN)      |
| S1005           | 1-572-125-11 | SWITCH, LEAF                                 | (FWD)       |
| S1006           | 1-572-202-11 | SWITCH, LEAF                                 | (HALF)      |
| S1007           | 1-572-125-11 | SWITCH, LEAF                                 | (METAL)     |
| S1008           | 1-572-125-11 | SWITCH, LEAF                                 | (70μ)       |

< TERMINAL >

\* TB1001 1-694-018-11 TERMINAL (5P)

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| The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified. | Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié. |
|--|--|

PANEL

REEL MOTOR

| Ref. No.                  | Part No.     | Description                          | Remark |
|---------------------------|--------------|--------------------------------------|--------|
| *                         | A-2007-161-A | PANEL BOARD, COMPLETE (K717ES/K815S) |        |
| *                         | A-2007-231-A | PANEL BOARD, COMPLETE (K715S)        |        |
| *****                     |              |                                      |        |
| *                         | 3-386-245-01 | HOLDER (FL)                          |        |
| < CONNECTOR >             |              |                                      |        |
| * CN901                   | 1-568-845-11 | SOCKET, CONNECTOR 31P                |        |
| * CN902                   | 1-568-830-11 | SOCKET, CONNECTOR 11P                |        |
| < DIODE >                 |              |                                      |        |
| D751                      | 8-719-987-63 | DIODE 1N4148M                        |        |
| D752                      | 8-719-987-63 | DIODE 1N4148M                        |        |
| D753                      | 8-719-987-63 | DIODE 1N4148M                        |        |
| < FLUORESCENT INDICATOR > |              |                                      |        |
| FLT751                    | 1-517-163-11 | INDICATOR TUBE, FLUORESCENT          |        |
| < IC >                    |              |                                      |        |
| IC751                     | 8-741-100-48 | IC SBX1610-59                        |        |
| < RESISTOR >              |              |                                      |        |
| R141                      | 1-259-444-11 | CARBON 4.7K 5% 1/6W                  |        |
| R241                      | 1-259-444-11 | CARBON 4.7K 5% 1/6W                  |        |
| R592                      | 1-249-429-11 | CARBON 10K 5% 1/4W                   |        |
| R749                      | 1-249-422-11 | CARBON 2.7K 5% 1/4W                  |        |
| R750                      | 1-247-836-11 | CARBON 1.6K 5% 1/4W (K715S)          |        |
| R750                      | 1-249-430-11 | CARBON 12K 5% 1/4W (K717ES/K815S)    |        |
| R752                      | 1-247-838-00 | CARBON 2K 5% 1/4W                    |        |
| R753                      | 1-249-422-11 | CARBON 2.7K 5% 1/4W                  |        |
| R754                      | 1-249-426-11 | CARBON 5.6K 5% 1/4W                  |        |
| R755                      | 1-247-856-00 | CARBON 11K 5% 1/4W                   |        |
| R756                      | 1-247-866-11 | CARBON 30K 5% 1/4W                   |        |
| R759                      | 1-247-838-00 | CARBON 2K 5% 1/4W                    |        |
| R760                      | 1-249-422-11 | CARBON 2.7K 5% 1/4W                  |        |
| R761                      | 1-249-426-11 | CARBON 5.6K 5% 1/4W                  |        |
| R762                      | 1-247-856-00 | CARBON 11K 5% 1/4W                   |        |
| R763                      | 1-247-838-00 | CARBON 2K 5% 1/4W                    |        |
| R764                      | 1-247-866-11 | CARBON 30K 5% 1/4W                   |        |
| R766                      | 1-249-426-11 | CARBON 5.6K 5% 1/4W                  |        |
| R768                      | 1-247-856-00 | CARBON 11K 5% 1/4W                   |        |
| R769                      | 1-247-866-11 | CARBON 30K 5% 1/4W                   |        |
| R770                      | 1-249-427-11 | CARBON 6.8K 5% 1/4W (K715S)          |        |
| R771                      | 1-247-807-31 | CARBON 100 5% 1/4W (K715S)           |        |
| R771                      | 1-249-431-11 | CARBON 15K 5% 1/4W (K717ES/K815S)    |        |
| R955                      | 1-249-441-11 | CARBON 100K 5% 1/4W                  |        |

| Ref. No.              | Part No.     | Description                        | Remark |
|-----------------------|--------------|------------------------------------|--------|
| < VARIABLE RESISTOR > |              |                                    |        |
| RV503                 | 1-223-329-11 | RES, VAR, CARBON 5K/5K (REC LEVEL) |        |
| RV506                 | 1-223-327-11 | RES, VAR, CARBON 10K (BIAS)        |        |
| < SWITCH >            |              |                                    |        |
| S501                  | 1-692-410-11 | SWITCH, ROTARY (DOLBY NR)          |        |
| S502                  | 1-554-118-00 | SWITCH, PUSH (1 KEY) (MPX FILTER)  |        |
| S701                  | 1-692-478-11 | SWITCH, SLIDE (TIMER)              |        |
| S751                  | 1-554-303-21 | SWITCH, TACTILE (OPEN/CLOSE ☰)     |        |
| S752                  | 1-554-303-21 | SWITCH, TACTILE (■)                |        |
| S753                  | 1-554-303-21 | SWITCH, TACTILE (◀◀)               |        |
| S754                  | 1-554-303-21 | SWITCH, TACTILE (▶▶)               |        |
| S755                  | 1-554-303-21 | SWITCH, TACTILE (REC ●)            |        |
| S756                  | 1-554-303-21 | SWITCH, TACTILE (▷)                |        |
| S757                  | 1-554-303-21 | SWITCH, TACTILE (PAUSE   )         |        |
| S758                  | 1-554-303-21 | SWITCH, TACTILE (REC MUTE ○)       |        |
| S759                  | 1-554-303-21 | SWITCH, TACTILE (COUNTER RESET)    |        |
| S760                  | 1-554-303-21 | SWITCH, TACTILE (COUNTER MEMORY)   |        |
| S762                  | 1-554-303-21 | SWITCH, TACTILE (MONITOR)          |        |
| S763                  | 1-554-303-21 | SWITCH, TACTILE (CALIBRATION)      |        |
| S801                  | 1-692-409-11 | SWITCH, PUSH (1 KEY) (POWER)       |        |
| *****                 |              |                                    |        |
| *                     | 1-632-741-11 | REEL MOTOR BOARD                   |        |
| *****                 |              |                                    |        |
| < CAPACITOR >         |              |                                    |        |
| C1051                 | 1-124-907-11 | ELECT 10uF 20% 50V                 |        |
| C1052                 | 1-124-907-11 | ELECT 10uF 20% 50V                 |        |
| C1053                 | 1-164-159-11 | CERAMIC 0.1uF 50V                  |        |
| < CONNECTOR >         |              |                                    |        |
| CN1051                | 1-564-501-11 | PIN, CONNECTOR 8P                  |        |
| * CN1052              | 1-564-720-11 | PIN, CONNECTOR (SMALL TYPE) 4P     |        |
| * CN1053              | 1-564-718-11 | PIN, CONNECTOR (SMALL TYPE) 2P     |        |
| < RESISTOR >          |              |                                    |        |
| R1051                 | 1-247-825-31 | CARBON 560 5% 1/4W                 |        |
| *****                 |              |                                    |        |



| Ref. No. | Part No.     | Description                              | Remark |
|----------|--------------|--|--------|
| *        | 1-651-596-11 | SENSOR BOARD<br>*****                    |        |
|          |              | < CONNECTOR >                            |        |
| * CN1004 | 1-564-496-11 | PIN, CONNECTOR 3P                        |        |
|          |              | < TRANSISTOR >                           |        |
| Q1001    | 8-749-924-10 | PHOTO REFLECTOR NJL5165K-B(H1)           |        |
|          |              | *****                                    |        |
|          |              | MISCELLANEOUS<br>*****                   |        |
| 16       | 1-534-517-00 | WIRE, FLAT TYPE (11 CORE)                |        |
| 17       | 1-765-149-11 | WIRE (FLAT TYPE) (31 CORE)               |        |
| ⚠57      | 1-551-188-XX | CORD, POWER (E)                          |        |
| ⚠57      | 1-558-945-21 | CORD, POWER (POLAR SPT-1) (US, Canadian) |        |
| ⚠61      | 1-696-845-11 | CORD, POWER (AUS)                        |        |
| ⚠62      | 1-696-586-11 | CORD, POWER (UK)                         |        |
| ⚠64      | 1-569-007-11 | ADAPTOR, CONVERSION 2P (E)               |        |
| ⚠65      | 1-575-651-21 | CORD, POWER (AEP, G)                     |        |
| D1051    | 8-719-980-85 | DIODE SLF325C                            |        |
| HE1001   | 1-543-673-11 | HEAD, MAGNETIC (ERASE) (K715S)           |        |
| HE1001   | 1-543-836-11 | HEAD, MAGNETIC (ERASE) (K717ES/K815S)    |        |
| HRP1001  | 1-543-733-11 | HEAD, MAGNETIC (REC/PB) (K715S)          |        |
| HRP1001  | 1-543-834-11 | HEAD, MAGNETIC (REC/PB) (K815S)          |        |
| HRP1001  | 1-543-835-11 | HEAD, MAGNETIC (REC/PB) (K717ES)         |        |
| M1051    | X-3356-638-1 | MOTOR (REEL R) ASSY                      |        |
| M1052    | X-3356-604-1 | MOTOR (ASSIST) ASSY                      |        |
| M1053    | X-3368-008-1 | MOTOR (CAPSTAN V19) ASSY                 |        |
| M1053    | X-3368-029-1 | MOTOR (CAPSTAN V18) ASSY                 |        |
| ⚠PT901   | 1-423-475-11 | TRANSFORMER, POWER (US, Canadian)        |        |
| ⚠PT901   | 1-423-476-11 | TRANSFORMER, POWER (AEP, UK, G, AUS)     |        |
| ⚠PT901   | 1-423-533-11 | TRANSFORMER, POWER (E)                   |        |
| S1001    | 1-466-238-11 | ENCODER, ROTARY                          |        |
| ⚠VS1     | 1-692-155-11 | SELECTOR, POWER VOLTAGE (VOLTAGE) (E)    |        |
|          |              | *****                                    |        |

| Ref. No. | Part No.     | Description   | Remark |
|----------|--------------|---|--------|
|          |              | *****<br>HARDWARE LIST<br>*****   |        |
| #1       | 7-621-255-20 | SCREW +BVTT 2X4 (S)   |        |
| #2       | 7-621-255-35 | SCREW +BVTT 2X5 (S)   |        |
| #3       | 7-621-770-67 | SCREW +BVTT 2.6X6 (S)   |        |
| #4       | 7-621-772-20 | SCREW +B 2X5  |        |
| #5       | 7-621-772-70 | SCREW +B 2X14 (K717ES/K815S)  |        |
| #6       | 7-621-775-20 | SCREW +B 2.6X5 (K717ES/K815S)   |        |
| #8       | 7-622-205-05 | NUT M2 TYPE2 (K717ES/K815S)   |        |
| #9       | 7-628-253-00 | SCREW +PS 2X4 (K717ES/K815S)  |        |
| #10      | 7-671-154-01 | STENLESS BALL (K717ES/K815S)  |        |
| #11      | 7-682-547-09 | SCREW +BVTT 3X6 (S)   |        |
| #12      | 7-682-548-09 | SCREW +BVTT 3X8 (S)   |        |
| #13      | 7-682-647-01 | SCREW +PS 3X6 (K717ES/K815S)  |        |
| #14      | 7-685-132-19 | SCREW +BTP 2.6X5 TYPE2 N-S (K715S)  |        |
| #15      | 7-685-533-19 | SCREW +BTP 2.6X6 TYPE2 N-S  |        |
| #16      | 7-685-534-19 | SCREW +BTP 2.6X8 TYPE2 N-S  |        |
| #17      | 7-685-646-79 | SCREW +BVTP 3X8 TYPE2 N-S (E)   |        |
| #18      | 7-685-870-01 | SCREW +BVTT 3X5 (S) (K717ES/K815S)  |        |
|          |              | *****   |        |
|          |              | ACCESSORIES & PACKING MATERIALS<br>*****  |        |
|          |              | 1-558-271-11 CORD, CONNECTION   |        |
| *        | 3-388-322-61 | INDIVIDUAL CARTON (K717ES)  |        |
| *        | 3-388-322-71 | INDIVIDUAL CARTON (K815S)   |        |
| *        | 3-388-322-81 | INDIVIDUAL CARTON (K715S)   |        |
|          | 3-758-196-11 | MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (K717ES:Canadian, E) |        |
|          | 3-758-196-21 | MANUAL, INSTRUCTION (ENGLISH) (K717ES:US)                                       |        |
|          | 3-758-197-11 | MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (K715S/K815S:AEP)    |        |
|          | 3-758-197-41 | MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN) (K715S/K815S:AEP)         |        |
|          | 3-758-197-51 | MANUAL, INSTRUCTION (GERMAN) (K715S/K815S:G)                                    |        |
|          | 3-758-197-61 | MANUAL, INSTRUCTION (ENGLISH) (K715S:UK, AUS)                                   |        |
| *        | 3-913-407-01 | CUSHION   |        |

|   |  |
|---|--|
| The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié. |
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## REVISION HISTORY

Clicking the version allows you to jump to the revised page.

Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

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